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DOMINION BUREAU OF STATISTICS

CENSUS OF INDUSTRY

1919

PULP AND PAPER

1919

(Prepared in collaboration with the Dominion Forestry Branch;
The Department of Crown Lands, Nova Scotia; The
Department of Lands and Mines, New Brunswick;
The Department of Lands and Forests,
Quebec; and the Department of
Lands, British Columbia.)

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CENSUS OF INDUSTRY, 1919.**PULP AND PAPER.****Preface.**

The statistics of the pulp and paper industry in this report were collected and compiled during 1920 for the calendar year 1919. Acknowledgments are tendered to the Department of Crown Lands, Nova Scotia; the Department of Lands and Mines, New Brunswick, the Department of Lands and Forests, Quebec, the Department of Lands, British Columbia, and the Canadian Pulp and Paper Association for their assistance in preparing the preliminary lists of operating concerns and in securing complete returns.

The report has been compiled and written under a co-operative arrangement between the Dominion Bureau of Statistics and the Forestry Branch of the Department of the Interior, the work in the Bureau being under the supervision of Mr. J. C. Macpherson, whilst the report was checked and edited by Mr. R. G. Lewis, B.Sc.F., of the Forestry Branch.

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DOMINION BUREAU OF STATISTICS,
OTTAWA, February, 1921.

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THE PULP AND PAPER INDUSTRY, 1919.

Introduction and Summary.

Continued expansion in the pulp and paper industry of Canada is indicated by a comparison of the principal statistics for the calendar year 1919 with those of the years 1917 and 1918, as presented in this and previous reports.

The number of operating mills in 1917 was 83, with a production of \$96,340,327. In 1918 the number of mills was 94 and the value of production \$119,309,434, while in 1919 the number of mills had risen to 99 with a production value of \$139,925,001.

The consumption of pulpwood by pulp mills and the quantity cut for export are shown in the summary table below for the calendar years 1917, 1918 and 1919.

| Pulpwood | 1917 | 1918 | 1919 |
|-------------------------------|------------------|------------------|------------------|
| | cords | cords | cords |
| Used in pulp mills..... | 2,104,334 | 2,210,744 | 2,428,706 |
| Cut for export..... | 1,017,834 | 1,349,536 | 1,070,275 |
| Total consumption..... | 3,122,168 | 3,560,280 | 3,498,981 |

Capital investment in 1919 also shows increases for each of the items included under that head when compared with previous years, as presented in the following summary table:—

| Items of Capital | 1917 | 1918 | 1919 | Increase per cent | |
|---|--------------------|--------------------|--------------------|-------------------|----------------|
| | | | | 1918 over 1917 | 1919 over 1918 |
| Land, buildings and fixtures..... | 84,461,837 | 118,805,581 | 121,448,227 | 40·66 | 2·22 |
| Machinery and tools..... | 59,266,596 | 60,627,266 | 75,407,708 | 2·29 | 24·38 |
| Materials on hand, stocks, in process, etc..... | 27,902,466 | 39,652,078 | 46,572,806 | 42·11 | 17·45 |
| Cash, trading and operating accounts, etc..... | 15,156,506 | 22,259,779 | 32,338,623 | 46·86 | 45·28 |
| Totals..... | 186,787,405 | 241,344,704 | 275,767,384 | 29·21 | 14·26 |

Salaries and wages, which in 1917 amounted to \$20,358,019, rose in 1918 to \$26,974,225 and in 1919 to \$32,264,208, the percentage increase in 1918 over 1917 being 32·5, and in 1919 over the preceding year 19·61. The number of employees on salaries which in 1917 was 1,563 had risen to 1,929 in 1918 and to 2,405 in 1919, or an approximate increase of 30 and 25 per cent respectively. The average number of workers on wages increased from 21,402 in 1917 to 23,934 in 1918 and to 24,242 in 1919. The increase in the 1917-18 period was 11·83 per cent and in the 1918-19 period 1·28 per cent.

Arrangement of Report.—The statistics of the present report deal with the various phases of the industry arranged in the following order: production, materials used, capital investment, equipment, power employed, employees, salaries and wages, working time, miscellaneous expenses, exports and imports.

For the purposes of this investigation, the various concerns engaged in the industry have been grouped under three heads: (1) mills making pulp only, (2) mills making pulp and paper, and (3) mills making paper only. Statistics are presented in the tables for each of these groups and also for the combined classes of mills.

Production.

Tables I and II of the report deal with the production of wood-pulp and paper respectively for each of the provinces and for the Dominion.

Wood-pulp.—The production of wood-pulp in Canada for the calendar year 1919 for all classes of mills was 1,716,089 tons, as compared with 1,557,193 tons in 1918 and 1,464,308 tons in 1917. Of the 1919 production, 924,162 tons were made for use in their own mills for the manufacture of paper and paper products, and 791,927 tons were made for sale or export. The amount received for the pulp made for sale was \$48,485,746, or an average price for all classes of pulp of \$61.22 per ton. The quantity and value of each kind of pulp made for sale and the average price per ton at the mill is presented in the following summary:—

| Kinds of Pulp made for Sale | Quantity | Selling value mill | Average value per ton at mill |
|---------------------------------|----------------|--------------------|-------------------------------|
| | Tons | \$ | \$ |
| Ground wood..... | 300,205 | 9,038,035 | 30.16 |
| Soda fibre..... | 3,174 | 297,113 | 93.60 |
| Sulphite fibre, bleached..... | 100,132 | 9,425,836 | 94.13 |
| Sulphite fibre, unbleached..... | 263,866 | 19,885,590 | 75.36 |
| Sulphate fibre..... | 124,550 | 9,839,172 | 79.00 |
| Total Pulp..... | 791,927 | 48,485,746 | 61.22 |

Sulphite fibre, which in 1918 was reported as 318,882 tons, has been divided in 1919 into bleached and unbleached, making a total production of 363,898 tons of sulphite for that year.

The number of mills engaged in the manufacture of pulp in 1919, according to the classes of pulp made, was as follows: Ground wood, 46; sulphite, unbleached, 28; sulphite, bleached, 4; sulphate, 8; and soda, 2.

Paper.—Table II deals with the production of the various classes of paper by quantities and values for each class of mills and for all mills engaged in the manufacture of paper and paper products. The statistics are also shown for each of the provinces and for the Dominion.

A summary showing the tonnage, value and value per ton together with ratios of each class of paper to the totals of tonnage and value is presented below:—

| Classes of Paper | Tonnage | Value | Average value per ton | Per cent of total tonnage | Per cent of total value |
|-----------------------------|------------------|-------------------|-----------------------|---------------------------|-------------------------|
| | | \$ | \$ cts. | | |
| Newsprint..... | 794,567 | 54,427,879 | 68.50 | 72.88 | 62.03 |
| Book and writing paper..... | 58,228 | 12,571,000 | 215.89 | 5.34 | 14.33 |
| Wrapping paper..... | 59,697 | 7,979,418 | 133.66 | 5.48 | 9.09 |
| Boards..... | 137,678 | 8,892,046 | 64.58 | 12.63 | 10.13 |
| Other paper products..... | 40,065 | 3,882,500 | 96.90 | 3.67 | 4.42 |
| All other products..... | — | 3,610,070 | — | — | — |
| Totals..... | 1,090,235 | 91,362,913 | — | 100.00 | 100.00 |

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The average value per ton in 1919 is higher for each class of paper, except book and writing paper, than in 1918. Newsprint increased from \$62.91 per ton in 1918 to \$68.50 per ton in 1919, or 9 per cent; wrapping paper from \$119.99 per ton in 1918 to \$133.66 per ton in 1919, or 11.4 per cent; boards from \$63.26 per ton in 1918 to \$64.58 per ton in 1919, or 1.7 per cent; and other paper products from \$91.10 per ton in 1918 to \$96.90 per ton in 1919, or 6.36 per cent. Book and writing paper, which in 1918 averaged \$222.90 per ton, fell to \$215.89 in 1919, or a decrease of 3.2 per cent.

The newsprint group, which in 1918 represented 75.93 per cent of the total tonnage and 63.22 per cent of the total value of paper products, fell in 1919 to 72.88 per cent of the tonnage and 62.03 per cent of the value. Book and writing paper increased from 4.97 per cent to 5.34 per cent of the total tonnage, but shows a slight decrease in per cent of the total value from 14.68 in 1918 to 14.33 in 1919. Wrapping papers show decreases both in tonnage and value, the tonnage falling from 6.32 per cent in 1918 to 5.48 per cent in 1919 and the value from 10.04 per cent in 1918 to 9.09 per cent in 1919. Boards show increases in total tonnage and total value over 1918, the percentage being for tonnage, 9.07 in 1918 and 12.63 in 1919, and for value, 7.59 in 1918 and 10.13 in 1919. There is also a slight decrease in other paper products, the tonnage falling from 3.71 per cent in 1918 to 3.67 in 1919 and the value from 4.47 in 1918 to 4.42 in 1919.

The number of mills engaged in the manufacture of paper products by classes in 1919 was as follows: newsprint, 24; wrapping paper, 19; book and writing paper, 17; boards, 13; and other paper products, 18.

The production of paper by provinces in 1919 is summarized in the subjoined table by tonnage and value:—

| Classes of Paper | | British Columbia | Ontario | Quebec | Canada |
|----------------------------------|-------|------------------|-------------------|-------------------|-------------------|
| Newsprint..... | tons | 125,904 | 352,254 | 316,409 | 794,567 |
| | value | 8,361,503 | 23,958,566 | 22,107,810 | 54,427,879 |
| Book and writing paper..... | tons | | 39,023 | 19,205 | 58,228 |
| | value | | 7,437,657 | 5,133,343 | 12,571,000 |
| Wrapping paper..... | tons | 9,406 | 10,193 | 40,098 | 59,697 |
| | value | 993,225 | 1,535,078 | 5,451,115 | 7,979,418 |
| Boards..... | tons | | 92,355 | 45,323 | 137,678 |
| | value | | 5,287,703 | 3,604,343 | 8,892,046 |
| Other paper products..... | tons | | 4,967 | 35,098 | 40,065 |
| | value | | 799,881 | 3,082,619 | 3,882,500 |
| Other products (value only)..... | | 475,921 | 911,589 | 2,222,560 | 3,610,070 |
| Totals..(tonnage..... | | 135,310 | 498,792 | 456,133 | 1,090,235 |
| value of products..... | | 9,830,649 | 39,930,474 | 41,601,790 | 91,362,913 |

Materials.

Materials used in the Manufacture of Wood-pulp.—The quantity and kind of the various woods used as the principal or primary raw material in the manufacture of pulp is presented in tables III-VI. The secondary classes of materials used with wood in the manufacture of chemical pulp are treated in table VIII.

Table III deals with the consumption of pulpwood by provinces for the calendar years 1918 and 1919. Quebec leads in this respect with a total of 1,176,134 cords, or 48.42 per cent of the total wood used. Ontario is second with 840,856 cords, or 34.62 per cent. The other provinces also show increases in the quantity of wood consumed. The average price per cord of pulpwood laid down at the mill shows considerable increases over 1918, ranging from \$15.60 per cord in Ontario to \$7.40 per cord in Nova Scotia, the average for the Dominion being \$12.90 per cord. This is an advance over 1918 of \$1.64 per

cord, or approximately 14·6 per cent. The number of mills reporting the manufacture of pulp in 1919 was 66, of which 29 were in Quebec, 22 in Ontario, and 5 in each of the provinces of British Columbia, Nova Scotia and New Brunswick.

Table IV shows the consumption of pulpwood by kinds of wood. Spruce leads the other varieties with 1,787,868 cords, or 73·61 per cent of the total of all woods. Balsam fir is next with 490,327 cords, or 20·19 per cent, and hemlock, third with 118,013 cords or 4·86 per cent. The remaining varieties are not so important, each being credited with less than one per cent of the total. The number of mills reporting the use of spruce timber was 61; balsam fir, 33; hemlock, 8; poplar 4; Jack pine, 3; and other kinds, 2.

The consumption of pulpwood in 1918 and 1919 by processes is shown in table V. The sulphite process required 1,127,659 cords, or 46·43 per cent of the total; the mechanical or ground wood process, 1,010,457 cords, or 41·61 per cent; the sulphate process, 281,360 cords, or 11·58 per cent; and the soda process 9,230 cords, or 0·38 per cent. Forty-six mills made mechanical pulp, 28 mills made sulphite pulp, 8 made sulphate pulp, and 2 made soda pulp.

Table VI is a combination of tables III-V in which the relation of pulpwood by provinces, kinds of wood, and processes is presented for purposes of comparison and contrast. Table VII shows the consumption and value of pulpwood by kinds of wood and classes of mills for the Dominion and for each of the provinces, whether purchased or cut from own limits. The total consumption in 1919 amounted to 2,428,706 cords, or 217,962 cords more than in 1918. Of the 1919 total, 1,006,934 cords were purchased and 1,421,772 cords were cut on operators' own limits. Spruce leads all classes of wood used in the manufacture of pulp with 1,787,868 cords or 73·61 per cent of the total wood used. Nearly 60 per cent was cut from own limits, while 40 per cent was purchased. Balsam fir is next with 490,327 cords in 1919, as compared with 447,243 cords in 1918, an increase in cordage of approximately 9·6 per cent; hemlock with 118,013 cords, Jack pine with 15,402 cords, poplar with 7,228 cords, and other kinds with 9,868 cords (principally cedar) being the remaining woods reported on the questionnaire.

The quantity of wood used in the manufacture of mechanical or ground wood-pulp was 1,010,457 cords in 1919, as compared with 873,084 cords in 1918, an increase of 137,373 cords, or 15·73 per cent. By the chemical process 1,418,249 cords were used in 1919, as compared with 1,337,660 cords in 1918, an increase of 80,589 cords, or 6 per cent.

The value delivered at the mill of the wood used in the manufacture of wood-pulp, whether cut from own limits or purchased, together with the average price per cord, is shown in the subjoined table for the calendar years 1917, 1918 and 1919:—

| Year | Purchased | | Cut from own limits | | Average value per cord | |
|-----------|-----------|------------|---------------------|------------|------------------------|-----------|
| | Cords | Value | Cords | Value | Own limits | Purchased |
| | | \$ | | | \$ | \$ |
| 1917..... | 539,303 | 5,549,335 | 1,565,031 | 13,268,148 | 10·29 | 8·48 |
| 1918..... | 717,097 | 8,981,307 | 1,493,647 | 15,905,168 | 12·52 | 10·65 |
| 1919..... | 1,006,934 | 13,949,853 | 1,421,772 | 17,397,833 | 13·85 | 12·25 |

The average value per cord of wood used in the various processes is highest in the mechanical and sulphite and lowest in the sulphate, which admits the use of woods of inferior quality. In 1919 the average value per cord by the mechanical process was \$13.14, as compared with \$11.40 in 1918. By the

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sulphite process the average price in 1919 was \$13.02, as against \$11.64 in 1918, and in the sulphate process \$11.63 in 1919, as compared with \$9.41 in 1918.

The quantity of pulp produced per cord of wood by the various processes is shown in the following comparative summary for the calendar years 1917, 1918 and 1919:—

| Year | Pounds of pulp per cord of wood | | | |
|-----------|---------------------------------|------------------|------------------|--------------------|
| | Soda Process | Sulphate Process | Sulphite Process | Mechanical Process |
| 1917..... | 930 | 1,105 | 1,063 | 2,043 |
| 1918..... | 980 | 1,133 | 1,037 | 2,039 |
| 1919..... | 996 | 1,126 | 997 | 1,961 |

Particulars by provinces and classes of mills of the wood used and pulp produced are shown in table IX.

Other materials used in the manufacture of wood-pulp by kinds and classes of mills are shown by quantities and values in table VIII. The value in all cases represents the cost laid down at the mill of the various items. The Province of Nova Scotia does not appear in the table, as it produces only mechanical or ground wood-pulp.

Materials used in the Manufacture of Paper.—The various materials used in the manufacture of paper are shown in table X by provinces and classes of mills. Pulp is the principal item in this table and the total tonnage used in the manufacture of paper was 1,037,231, of which 921,490 tons were produced by the mills for own use and 115,741 tons were purchased from other mills. The value of the pulp purchased amounted to \$9,148,338, or an average for all classes of pulp of approximately \$80 per ton. The quantity of ground wood purchased was 44,986 tons, valued at \$2,962,699, or an average of \$65.85 per ton; soda fibre purchased amounted to 1,822 tons, worth \$213,965, or an average of \$117.43 per ton; bleached sulphite purchased amounted to 18,432 tons, worth \$2,430,945, or an average of \$131.89 per ton; unbleached sulphite amounted to 44,237 tons, worth \$3,101,869, or an average of \$70.12 per ton; and sulphate fibre with a tonnage of 6,264 and cost value of \$438,860, or an average per ton of \$70.06. The quantity and cost value of the other materials is given by items, the total value of such materials being \$8,656,596, making a total of \$17,804,934 for purchased materials. In addition to this total, the quantity produced for own use, viz., 921,490 tons, has not been accounted for as to value, which amounted to \$24,834,532, or a grand total of \$42,639,466 for all materials used in the manufacture of paper.

Fuel Consumption.—Table XI shows the quantities and values of the different kinds of fuel used by each class of mills for the year ended December 31, 1919. The total cost of all fuel used in the industry was \$10,549,493, of which bituminous coal accounted for \$9,408,721, or approximately 90 per cent of the total cost of all fuel. The following summary table shows the quantity and value of each of the classes of fuel used in the Dominion by origin:—

| Kinds of fuel | Unit of measure | Canadian | | Foreign | |
|-----------------------------------|-----------------|----------|------------------|------------|------------------|
| | | Quantity | Value | Quantity | Value |
| Bituminous coal, slack..... | ton | 20,807 | \$ 156,802 | 458,868 | \$ 3,588,425 |
| Bituminous coal, lump..... | " | 1,160 | 9,563 | 230,864 | 1,579,628 |
| Butimunous coal, run-of-mine..... | " | 206,225 | 1,665,253 | 284,348 | 2,409,050 |
| Anthracite coal, lump..... | " | — | — | 353 | 5,017 |
| Lignite coal..... | " | — | — | 10,119 | 65,723 |
| Coke..... | " | — | — | 345 | 949 |
| Gasoline..... | gals. | 52,589 | 15,633 | 1,000 | 330 |
| Oil (fuel)..... | " | 663,866 | 47,962 | 13,733,452 | 690,758 |
| Wood..... | cds. | 33,462 | 234,134 | — | — |
| All other fuel..... | — | — | 79,526 | — | 740 |
| Totals..... | — | — | 2,208,873 | — | 8,340,620 |

Agencies of Production — (1) Capital — Mill Equipment — Power Employed.

The agencies of production of a fixed character as above stated are presented in tables XII to XVI, inclusive, of this report for the calendar year 1919.

Capital.—Table XII shows the distribution of capital under four main heads: (a) land, buildings and fixtures, (b), machinery and tools, (c) materials on hand, stocks in process of manufacture, finished products on hand, fuel and miscellaneous supplies, and (d) cash, trading and operating accounts and bills receivable. The statistics of these items are given in the following summary by classes of mills for the Dominion:—

| Items of Capital | In paper mills | In pulp mills | In pulp and paper mills | In all classes of mills |
|--|-------------------|-------------------|-------------------------|-------------------------|
| | \$ | \$ | \$ | \$ |
| Land, buildings and fixtures..... | 7,156,078 | 28,776,979 | 85,515,170 | 121,448,227 |
| Machinery and tools..... | 3,811,936 | 17,918,903 | 53,676,869 | 75,407,708 |
| Materials on hand, stocks in process, etc..... | 2,502,934 | 12,066,905 | 32,002,967 | 46,572,806 |
| Cash, trading and operating accounts, etc..... | 3,082,328 | 11,133,801 | 18,122,494 | 32,338,623 |
| Totals..... | 16,553,276 | 69,896,588 | 189,317,500 | 275,767,364 |

The capital investment in each class of mills is shown by provinces in the summary table below:—

| Provinces | In paper mills | In pulp mills | In pulp and paper mills | In all classes of mills |
|---------------------------|-------------------|-------------------|-------------------------|-------------------------|
| | \$ | \$ | \$ | \$ |
| British Columbia..... | | 6,388,121 | 36,828,006 | 43,216,127 |
| New Brunswick..... | | 11,960,778 | | 11,960,778 |
| Nova Scotia..... | | 1,208,255 | | 1,208,255 |
| Ontario..... | 6,703,756 | 21,575,584 | 67,001,700 | 95,281,040 |
| Quebec..... | 9,849,520 | 28,763,850 | 85,487,794 | 124,101,164 |
| Canada totals..... | 16,553,276 | 69,896,588 | 189,317,500 | 275,767,364 |

The percentage of the items of capital to the total capital and the percentage by provinces for each class of mills are appended:—

(a) PERCENTAGE TO TOTAL CAPITAL.

| Items of Capital | In paper mills | In pulp mills | In pulp and paper mills | In all classes of mills |
|--|----------------|---------------|-------------------------|-------------------------|
| | per cent | per cent | per cent | per cent |
| Land, buildings and fixtures..... | 43.23 | 41.17 | 45.17 | 44.04 |
| Machinery and tools..... | 23.03 | 25.64 | 28.35 | 27.34 |
| Materials on hand, stocks in process, etc..... | 15.12 | 17.26 | 16.91 | 16.89 |
| Cash, trading and operating accounts, etc..... | 18.62 | 15.93 | 9.57 | 11.73 |
| | 100.00 | 100.00 | 100.00 | 100.00 |

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(b) PERCENTAGE BY PROVINCES

| Items of Capital. | In paper mills | In pulp mills | In pulp and paper mills | In all classes of mills |
|------------------------|----------------|---------------|-------------------------|-------------------------|
| | per cent | per cent | per cent | per cent |
| British Columbia | | 9.14 | 19.45 | 15.67 |
| New Brunswick..... | - | 17.11 | - | 4.34 |
| Nova Scotia..... | - | 1.73 | - | 0.44 |
| Ontario..... | 40.50 | 30.87 | 35.40 | 34.55 |
| Quebec | 59.50 | 41.15 | 45.15 | 45.09 |
| | 100.00 | 100.00 | 100.00 | 100.00 |

From the above table it will be seen that the largest item of capital investment is in land, buildings and fixtures, being highest in the combined pulp and paper group with 45.17 per cent. The next largest item is for machinery and tools and again the combined mills show the highest percentage. Materials on hand, stocks in process, etc., comes next with the highest percentage in pulp mills with 17.26 per cent. Paper mills show the highest percentage in working capital with 18.62 per cent, followed by pulp mills with 15.93 per cent and the combined mills with 9.57 per cent.

The percentage of capital investment in all of the classes of mills is highest in the province of Quebec with 45 per cent of the whole. Ontario is second with 34.55 per cent, and British Columbia, third, with 15.67 per cent.

Mill Equipment.—The machinery in mills making ground wood-pulp consisted of 612 grinders with a capacity per twenty-four hours of 3,939 tons and a yearly capacity of 1,193,920 tons of pulp, dry weight. The province of Quebec leads with 325 grinders, with a capacity of 2,195 tons per twenty-four hours and a yearly capacity of 623,100 tons, dry weight. The actual production of ground wood-pulp in the Dominion during 1919 was 990,902 tons, or nearly 83 per cent of the total capacity, whereas in 1918 the percentage to total capacity was 76.74. In Quebec the actual output was 515,457 tons in a total capacity of 623,100 tons or 82.72 per cent of full capacity: in Ontario the actual output was 351,572 tons in a total capacity of 427,520 tons, or 82.23 per cent of full capacity: in British Columbia the actual output was 99,967 tons in a total capacity of 111,600 tons, or 89.57 per cent of full capacity: in Nova Scotia, which makes ground wood only, the actual output was 17,659 tons in a total capacity of 24,200 tons, or 72.97 per cent of full capacity; and in New Brunswick with an actual output of 6,447 tons in a total capacity of 7,500 tons, or 85.96 per cent of full capacity.

Table XIV shows the equipment of mills making pulp by the chemical processes. The total number of digesters rose from 134 in 1918 to 137 in 1919, the capacity in tons per cook from 633 tons in 1918 to 915 tons in 1919, and the yearly capacity of the mills from 810,697 tons in 1918 to 890,100 tons in 1919.

The percentage of actual output of chemical pulp to total capacity of mills for Canada and the provinces is shown in the table below:—

| Provinces | Total Capacity | Total Output | Per cent total Capacity |
|-----------------------|----------------|--------------|-------------------------|
| | Tons | Tons | |
| British Columbia..... | 104,260 | 94,359 | 90.50 |
| New Brunswick | 90,000 | 68,739 | 76.38 |
| Ontario..... | 308,240 | 246,255 | 79.89 |
| Quebec..... | 387,600 | 315,834 | 81.49 |
| Canada | 890,100 | 725,187 | 81.47 |

Paper Mill Machinery.—The equipment in the paper mills of Canada is shown in table XV. The total yearly capacity in tons is stated at 1,162,377 tons, an increase of 142,843 tons over the preceding year. The actual production of paper and paper products during 1919 was 1,090,235 tons, or nearly 93·80 per cent of full capacity. Ontario leads in the production of paper with 498,792 tons in a total capacity of 513,593 tons, or 97·11 per cent of full capacity. Quebec is second with an actual production of 456,133 tons and a capacity production of 510,784 tons, or 89·30 per cent of full capacity, and British Columbia, third, with an actual production of 135,310 tons and a capacity production of 138,000 tons, or 98·0 per cent of full capacity. From these figures it will be seen that the margin between capacity and actual production during the year was 6·20 per cent for the Dominion, 2·89 per cent in Ontario, 10·70 per cent in Quebec, and 2·0 per cent in British Columbia.

Power Employed.—The classes of power employed in the industry are shown by provinces and classes of mills in table XVI. The total units of power used was 4,584 with a rated horse-power of 623,588, of which 512,886 horse-power was actually used. Hydraulic power stands in first place with 356 units of a rated horse-power of 290,164, of which 245,022 was actually employed. Electric power is second with 3,433 units of an indicated horse-power of 198,930, of which 150,648 horse-power was actually employed. Steam engines and steam turbines with 261 units of 47,586 indicated horse-power, of which 38,133 were actually employed. Of the total power actually employed in the industry 61·29 per cent was in the combined pulp and paper mills, 32·97 per cent in pulp mills and 5·74 per cent in paper mills. The distribution of power by provinces was as follows: Quebec, 48·91 per cent; Ontario, 28·54 per cent; British Columbia, 14·66 per cent; New Brunswick, 5·76 per cent; and Nova Scotia, 2·3 per cent.

Agencies of Production — (2) Employees, Salaries, Wages and Working Time.

The statistics relating to employment are presented in tables XVII to XX by provinces and classes of mills.

Employees, Salaries and Wages. A general review of the number of persons, male and female, by classes of employment, in each kind or class of mills, together with the amount paid to each class in salaries and wages, is given in table XVII. The following summary table gives a comparison of the numbers at employment and the amounts paid in salaries and wages for the calendar years 1918 and 1919:—

| Classes of employees | | Employees No. | | Salaries and Wages | Increase per cent | |
|---|------|---------------|--------|--------------------|-------------------|--------------------|
| | | Male | Female | | Employees | Salaries and wages |
| Officers, superintendents and managers..... | 1918 | 462 | 2 | \$ 1,807,468 | — | — |
| | 1919 | 542 | 18 | 2,054,574 | 20·69 | 13·67 |
| Clerks, stenographers and other salaried employees/ | 1918 | 1,164 | 301 | 1,888,151 | — | — |
| | 1919 | 1,485 | 360 | 2,636,096 | 25·94 | 39·64 |
| Wage earners, average number..... | 1918 | 23,086 | 848 | 23,278,606 | — | — |
| | 1919 | 23,346 | 806 | 27,573,338 | 1·29 | 18·46 |
| Totals | 1918 | 24,712 | 1,151 | 26,974,225 | — | — |
| | 1919 | 25,373 | 1,274 | 32,264,208 | 3·03 | 19·61 |

From the foregoing table it will be seen that the total employees connected with the industry increased during the year by 784 or 3·03 per cent. The

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increase in the number of persons employed in the official and clerical classes exceeds that of 1918 by 96, or 20·69 per cent in the official class, and 380 or 25·92 per cent in the clerical class. Wage-earners while showing an increase in the total number employed of 784 have but a percentage increase of 1·29. The increase in the amounts paid in salaries and wages continues during 1918-19 although the percentages are not so large as those of the 1917-18 period, being 13·67 per cent in the class of officers, superintendents and managers, 39·64 per cent in the class of clerks, stenographers and other salaried employees, and 18·46 per cent in the wage-earning class. In the industry as a whole the increase in the total salary and wage bill amounted to \$5,289,983, or 19·61 per cent. A comparison of the average salary and wage payment according to classes of employment is shown in the following summary for the calendar years 1918 and 1919.

| Classes of employment | Average earnings | | Increase | |
|---|------------------|-------|----------|-------|
| | 1918 | 1919 | Amount | P. C. |
| | \$ | \$ | \$ | |
| Officers, superintendents, managers..... | 3,895 | 3,669 | —226 | —5·80 |
| Clerks, stenographers and other salaried employees..... | 1,289 | 1,429 | 140 | 10·86 |
| Wage earners..... | 972 | 1,137 | 165 | 16·98 |

From the above it will be observed that there has been a considerable decrease in the average earnings of persons of the first class since last report amounting to 5·80 per cent. This may be accounted for from the fact that the 96 new employees in 1919 received but \$247,106 or less than this figure by reason of any increases made to members previously employed on the staff. This is an average for the new employees of \$2,574, as compared with \$3,895 in 1918, which would tend to lower the average for that year to the average as stated above. The second class, which comprises the clerical staff, shows an average increase of \$140 per employee, or 10·86 per cent, while in the third class, representing the workers on wages, the average increase was \$165 per employee, or 16·98 per cent.

Working Time.—The working time of employees by months for each class of mills is presented in table XVIII. In pulp mills the months of highest employment are October to December and the lowest from January to March. In pulp and paper mills the months of highest employment are July to December and the lowest from January to June. In paper mills there is not the variation that exists in the other mills, the month of highest employment being November and the lowest in May.

Classified Weekly Wages.—Table XIX presents statistics of classified weekly wages of mill workers by classes of mills and provinces, according to sex and age. The statistics are shown by gradations of one dollar from earnings of \$5 per week up to \$16 per week and by two dollar gradations from \$16 per week up to \$30 per week. Of the total of 25,177 employees reported on wages in 1919, the number receiving less than \$10 per week was 760 or approximately 3 per cent of the total employed, as compared with 1,173, or 5 per cent in 1918. The number receiving \$10 but less than \$15 per week in 1919 was 1,751, or 6·95 per cent, as against 3,062 or 13·14 per cent in 1918. Those receiving \$15 per week but under \$20 per week numbered 5,528 in 1919, or 21·96 per cent, as compared with 7,499 in 1918, or 32·2 per cent. The number of employees receiving \$20 per week and over in 1919 was 17,138, or 68·07 per cent, as compared with 11,577 in 1918, or 49·66 per cent. The accompanying summary

table is a comparison of employees within specified wage groupings by age and sex for the calendar years 1918 and 1919:—

| Weekly Wage Groups | 1918 | | | | | 1919 | | | | |
|---------------------|--------------|-----|----------|----|--------|--------------|-----|----------|----|--------|
| | Over 16 yrs. | | Under 16 | | Total | Over 16 yrs. | | Under 16 | | Total |
| | M. | F. | M. | F. | | M. | F. | M. | F. | |
| Under \$5 | 8 | 20 | 21 | 20 | 69 | - | 2 | - | - | 2 |
| \$5 but under \$6 | 3 | 5 | 10 | 16 | 34 | 17 | 7 | 8 | 11 | 43 |
| \$6 but under \$7 | 39 | 65 | 21 | 8 | 133 | 18 | 29 | 28 | 10 | 85 |
| \$7 but under \$8 | 87 | 87 | 21 | 29 | 224 | 63 | 112 | 9 | 3 | 187 |
| \$8 but under \$9 | 122 | 210 | 13 | 16 | 361 | 56 | 104 | 21 | 7 | 188 |
| \$9 but under \$10 | 216 | 111 | 22 | 3 | 352 | 90 | 132 | 23 | 10 | 255 |
| \$10 but under \$12 | 371 | 148 | 23 | - | 542 | 196 | 187 | 74 | - | 457 |
| \$12 but under \$15 | 2,402 | 102 | 16 | - | 2,520 | 1,098 | 162 | 33 | 1 | 1,294 |
| \$15 but under \$20 | 7,420 | 22 | 55 | 2 | 7,499 | 5,405 | 98 | 24 | 1 | 5,528 |
| \$20 and over | 11,566 | 10 | 1 | - | 11,577 | 17,079 | 26 | 33 | - | 17,138 |
| Totals | 22,234 | 780 | 203 | 94 | 23,311 | 24,022 | 859 | 253 | 43 | 25,177 |

The upward trend of wages is the important feature in the above table, fewer people being employed at the lower rates of compensation in 1919 than in 1918 and a correspondingly greater number at the higher rates. The number receiving more than \$20 per week was 11,577 in 1918, as compared with 17,138 in 1919, or a variation in the year of 5,561.

Table XX shows the average working time for each class of mills by days in operation on (a) full time operation, (b) three-quarter time, (c) half time, (d) less than half time and (e) the number of days the plant was idle. Pulp and paper mills occupy first place with a total of 293 days on full time, 5 days on part time and 6 days idle. Paper mills come next with 270 days of full time operation, 10 days of part time operation and 24 days idle. Pulp mills are lowest, with 240 days of full time operation, 21 days part time operation and 43 days idle.

The number of hours per day and per shift was greatest in pulp mills, with 9·7 and 61 hours respectively. Paper mills were next with a 9-hour shift and a total working time per week of 56·5 hours. Pulp and paper mills are lowest both in working hours per shift and per week, being 8 hours per shift and 48 hours per week.

Miscellaneous Expenses of Production.

The outlay for the miscellaneous expenses or overhead charges of production is shown in table XXI by classes of mills and provinces. The items comprised under this head for the Dominion were as follows:—

| | |
|---|---------------|
| Rent of offices, works and machinery | \$ 295,191 |
| Rent of power | 1,761,554 |
| Insurance premiums | 891,257 |
| Taxes | 1,441,729 |
| Royalties, use of patents, etc. | 29,241 |
| Advertising expenses | 117,664 |
| Travelling expenses | 338,954 |
| Ordinary repairs to buildings and machinery | 5,163,165 |
| All other sundry expenses | 6,990,657 |
| Total | \$ 17,029,412 |

All other sundry expenses constituted the principal item of miscellaneous expense, being 41·05 per cent of the total. Ordinary repairs to buildings and plant were 30·32 per cent; rent of power, 10·34 per cent; taxes, municipal, provincial and federal, 8·47 per cent; insurance, 5·23 per cent; travelling expenses, 1·99 per cent; rent of offices, etc., 1·73 per cent; advertising expenses, 0·69 per cent; and royalties, etc., 0·17 per cent.

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Exports and Imports of Pulpwood, Wood-pulp and Paper, 1919.

Pulpwood.—Tables XXII and XXIII of this report deal with the exports of pulpwood by provinces for a series of years. Table XXII gives the quantity and value of pulpwood exported for the calendar years 1916, 1917, 1918 and 1919. A decrease is shown both in quantity and value in 1919, when compared with the previous year, of 279,261 cords and of \$2,406,203 in value. The average export price for all classes of wood was \$9.71 per cord in 1919. Table XXIII gives in addition to exports the quantity used in manufacture which together gives the production of pulpwood in Canada for the year. It will be observed that while the quantity used in manufacture shows increases from year to year, there is a considerable fluctuation in the quantity cut for export. The province of Quebec supplied 61.8 per cent of the total quantity of pulpwood exported; Ontario, 18.3 per cent; New Brunswick, 18.2 per cent; British Columbia, 1.5 per cent; and Nova Scotia a little more than one-tenth of one per cent. All of the pulpwood exported in 1919 went to the United States. There were no imports of pulpwood into Canada during the year 1919.

Wood-pulp.—Table XXIV is a statement of the exports of wood-pulp by countries for the calendar years 1917, 1918 and 1919. The total quantity of all classes of pulp exported during the year was 709,129 tons, of which 311,551 tons was mechanically ground and 397,578 tons chemically prepared. A change made in the classification of chemically prepared pulp in 1919 will permit the division of the items comprised under this head in future reports. Over 56 per cent of the mechanical or ground wood-pulp and 79 per cent of chemical pulp was exported to the United States. The United Kingdom took 30 per cent of the mechanical pulp and 10 per cent of the chemically prepared pulp. France and Japan are the other principal markets for this commodity.

Table XXV deals with the imports of wood-pulp by countries. In 1917 and 1918 the entire importation was from the United States, but in 1919, the first year for which quantities are available, there was also a small importation from the United Kingdom.

Paper.—The exports of paper of all kinds are given by quantity and value in table XXVI for the calendar years 1917, 1918 and 1919. The value of exports increased from \$35,621,932 in 1917 to \$42,950,759 in 1918, or by more than 20 per cent, while in 1919 the value rose to \$59,983,269, or an increase over 1918 of nearly 40 per cent. The countries to which newsprint paper was exported and the value were as follows:

1919

| Country | Value | Per cent of total newsprint |
|---------------------------|-------------------|-----------------------------------|
| | \$ | |
| United States..... | 43,603,922 | 87.54 |
| United Kingdom..... | 1,184,562 | 2.38 |
| Australia..... | 2,470,057 | 4.95 |
| British South Africa..... | 197,045 | 0.40 |
| New Zealand..... | 623,792 | 1.25 |
| Other Countries..... | 1,731,984 | 3.48 |
| Total..... | 49,811,362 | 100.00 |

The quantity and value of the various classes of paper imported is shown in table XXVII for the calendar years 1917, 1918 and 1919. The value of imported papers shows annual increases but in lesser volume than exports. The percentage of increase, which in 1918 was 7.6, had risen in 1919 to over 9.0 per cent, the total value in the latter year standing at \$9,246,414.

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|-----------|--------------------------|

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Table I.—Wood-Pulp Production, Use and Sale by Classes of Mills, 1919

| Kinds of pulp by provinces | Pulp Mills — Pulperies | | | | Pulp and — Pulperies et | |
|-----------------------------------|---|---|---|----------------------|---|---|
| | Total production | Made for own use | Made for Sale | | Total production | Made for own use |
| | Production totale | Pour la con- sommation | Pour la vente | | Production totale | Pour la con- sommation |
| | Tons of 2,000 lbs. — Tonnes de 2,000 liv. | Tons of 2,000 lbs. — Tonnes de 2,000 liv. | Tons of 2,000 lbs. — Tonnes de 2,000 liv. | Value — Valeur | Tons of 2,000 lbs. — Tonnes de 2,000 liv. | Tons of 2,000 lbs. — Tonnes de 2,000 liv. |
| British Columbia | | | | \$ | | |
| Ground wood..... | - | - | - | - | 99,767 | 98,657 |
| Soda fibre..... | - | - | - | - | - | - |
| Sulphite fibre bleached..... | 11,518 | - | 11,518 | 1,151,800 | - | - |
| Sulphite fibre unbleached..... | 40,222 | - | 40,222 | 3,262,539 | 33,147 | 32,817 |
| Sulphate fibre..... | - | - | - | - | 9,472 | 5,460 |
| Other miscellaneous products..... | - | - | - | - | - | - |
| Totals | 51,740 | - | 51,740 | 4,414,339 | 142,386 | 136,934 |
| New Brunswick | | | | | | |
| Ground wood..... | 6,447 | - | 6,447 | 195,606 | - | - |
| Soda fibre..... | - | - | - | - | - | - |
| Sulphite fibre bleached..... | 12,833 | - | 12,833 | 1,309,367 | - | - |
| Sulphite fibre unbleached..... | 43,779 | - | 43,779 | 3,217,280 | - | - |
| Sulphate fibre..... | 12,127 | - | 12,127 | 1,152,065 | - | - |
| Other miscellaneous products..... | - | - | - | - | - | - |
| Totals | 75,186 | - | 75,186 | 5,874,318 | - | - |
| Nova Scotia | | | | | | |
| Ground wood..... | 17,659 | - | 17,659 | 440,711 | - | - |
| Soda fibre..... | - | - | - | - | - | - |
| Sulphite fibre bleached..... | - | - | - | - | - | - |
| Sulphite fibre unbleached..... | - | - | - | - | - | - |
| Sulphate fibre..... | - | - | - | - | - | - |
| Other miscellaneous products..... | - | - | - | 4,000 | - | - |
| Totals | 17,659 | - | 17,659 | 444,711 | - | - |
| Ontario | | | | | | |
| Ground wood..... | 17,345 | - | 17,345 | 553,454 | 334,227 | 303,384 |
| Soda fibre..... | - | - | - | - | 1,202 | - |
| Sulphite fibre bleached..... | 42,219 | - | 42,219 | 4,437,383 | 3,010 | 3,010 |
| Sulphite fibre unbleached..... | 54,552 | - | 54,552 | 4,828,445 | 135,341 | 89,221 |
| Sulphate fibre..... | - | - | - | - | 9,931 | 342 |
| Other miscellaneous products..... | - | - | - | 80,576 | - | - |
| Totals | 114,116 | - | 114,116 | 9,899,858 | 483,711 | 395,957 |
| Quebec | | | | | | |
| Ground wood..... | 204,556 | - | 204,556 | 6,167,057 | 310,901 | 285,984 |
| Soda fibre..... | - | - | - | - | 3,395 | 1,423 |
| Sulphite fibre bleached..... | 28,793 | - | 28,793 | 2,245,854 | 11,422 | 6,653 |
| Sulphite fibre unbleached..... | 31,846 | - | 31,846 | 2,229,265 | 113,433 | 66,416 |
| Sulphate fibre..... | 47,391 | - | 47,391 | 3,574,012 | 79,554 | 28,123 |
| Other miscellaneous products..... | - | - | - | 20,417 | - | - |
| Totals | 312,586 | - | 312,586 | 11,236,605 | 518,705 | 388,599 |
| Canada | | | | | | |
| Ground wood..... | 246,007 | - | 246,007 | 7,356,828 | 744,895 | 688,025 |
| Soda fibre..... | - | - | - | - | 4,597 | 1,423 |
| Sulphite fibre bleached..... | 95,363 | - | 95,363 | 9,144,404 | 14,432 | 9,663 |
| Sulphite fibre unbleached..... | 170,399 | - | 170,399 | 13,537,529 | 281,921 | 188,454 |
| Sulphate fibre..... | 59,518 | - | 59,518 | 4,726,077 | 98,957 | 33,925 |
| Other miscellaneous products..... | - | - | - | 104,993 | - | - |
| Total | 571,287 | - | 571,287 | 34,869,831 | 1,144,802 | 921,490 |

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Tableau I.—Production, consommation et vente de la pulpe de bois, par genres de fabriques, 1919.

| paper mills — papeteries | | All mills making wood pulp — Toutes fabriques de pulpe de bois | | | | Espèces de pulpe, par provinces |
|---|----------------------|--|---|---|------------|---|
| Made for Sale — Pour la vente | | Total production — Production totale | Made for own use — Pour la con- sommation | Made for Sale — Pour la vente | | |
| Tons of 2,000 lbs. — Tonnes de 2,000 liv. | Value — Valeur | Tons of 2,000 lbs. — Tonnes de 2,000 liv. | Tons of 2,000 lbs. — Tonnes de 2,000 liv. | Tons of 2,000 lbs. — Tonnes de 2,000 liv. | Value | |
| | \$ | | | | \$ | |
| Colombie Britannique | | | | | | |
| 1,110 | 23,944 | 99,767 | 98,657 | 1,110 | 23,944 | Pulpe mécanique. |
| — | — | — | — | — | — | Pulpe chimique, à la soude. |
| — | — | 11,518 | — | 11,518 | 1,151,800 | Pulpe chimique, au sulfite, blanchie. |
| 330 | 11,157 | 73,369 | 32,817 | 40,552 | 3,273,696 | Pulpe chimique, au sulfite, non blanchie. |
| 4,012 | 325,557 | 9,472 | 5,460 | 4,012 | 325,557 | Pulpe chimique au sulfate |
| — | — | — | — | — | — | Autres produits divers. |
| 5,452 | 350,658 | 194,126 | 136,934 | 57,192 | 4,774,997 | Total |
| Nouveau-Brunswick | | | | | | |
| — | — | 6,447 | — | 6,447 | 195,606 | Pulpe mécanique. |
| — | — | — | — | — | — | Pulpe chimique, à la soude. |
| — | — | 12,833 | — | 12,833 | 1,309,367 | Pulpe chimique, au sulfite, blanchie. |
| — | — | 43,779 | — | 43,779 | 3,217,280 | Pulpe chimique, au sulfite, non blanchie. |
| — | — | 12,127 | — | 12,127 | 1,152,065 | Pulpe chimique au sulfate. |
| — | — | — | — | — | — | Autres produits divers. |
| — | — | 75,186 | — | 75,186 | 5,874,318 | Total |
| Nouvelle-Ecosse | | | | | | |
| — | — | 17,659 | — | 17,659 | 440,711 | Pulpe mécanique. |
| — | — | — | — | — | — | Pulpe chimique, à la soude. |
| — | — | — | — | — | — | Pulpe chimique au sulfite, blanchie. |
| — | — | — | — | — | — | Pulpe chimique, au sulfite, non blanchie. |
| — | — | — | — | — | — | Pulpe chimique, au sulfate. |
| — | — | — | — | — | 4,000 | Autres produits divers. |
| — | — | 17,659 | — | 17,659 | 444,711 | Total |
| Ontario | | | | | | |
| 30,843 | 947,997 | 351,572 | 303,384 | 48,188 | 1,501,451 | Pulpe mécanique. |
| 1,202 | 119,633 | 1,202 | — | 1,202 | 119,633 | Pulpe chimique, à la soude. |
| — | — | 45,229 | 3,010 | 42,219 | 4,437,383 | Pulpe chimique au sulfite, blanchie. |
| 46,120 | 3,320,480 | 189,893 | 89,221 | 100,672 | 8,148,925 | Pulpe chimique, au sulfite, non blanchie. |
| 9,589 | 782,800 | 9,931 | 342 | 9,589 | 782,800 | Pulpe chimique au sulfate. |
| — | — | — | — | — | 80,576 | Autres produits divers. |
| 87,754 | 5,170,910 | 597,827 | 395,957 | 201,870 | 15,070,768 | Total |
| Québec | | | | | | |
| 24,917 | 709,266 | 515,457 | 285,984 | 229,473 | 6,876,323 | Pulpe mécanique. |
| 1,972 | 177,480 | 3,395 | 1,423 | 1,972 | 177,480 | Pulpe chimique, à la soude. |
| 4,769 | 281,432 | 40,215 | 6,653 | 33,562 | 2,527,286 | Pulpe chimique au sulfite, blanchie. |
| 47,017 | 3,016,424 | 145,279 | 66,416 | 78,863 | 5,245,689 | Pulpe chimique, au sulfite, non blanchie. |
| 51,431 | 4,004,738 | 126,945 | 28,123 | 98,822 | 7,578,750 | Pulpe chimique au sulfate. |
| — | 32,805 | — | — | — | 53,222 | Autres produits divers. |
| 130,106 | 8,222,145 | 831,291 | 388,599 | 442,692 | 22,458,750 | Total |
| Canada | | | | | | |
| 56,870 | 1,681,207 | 990,902 | 688,025 | 302,877 | 9,038,035 | Pulpe mécanique. |
| 3,174 | 297,113 | 4,597 | 1,423 | 3,174 | 297,113 | Pulpe chimique, à la soude. |
| 4,769 | 281,432 | 109,795 | 9,663 | 100,132 | 9,425,836 | Pulpe chimique au sulfite, blanchie. |
| 93,467 | 6,348,061 | 452,320 | 188,454 | 263,866 | 19,885,590 | Pulpe chimique, au sulfite, non blanchie. |
| 65,032 | 5,113,095 | 158,475 | 33,925 | 124,550 | 9,839,172 | Pulpe chimique au sulfate. |
| — | 32,805 | — | — | — | 137,798 | Autres produits divers. |
| 223 312 | 13,753,713 | 1,716,089 | 921,490 | 794,599 | 48,623,544 | Total |

Table II.—Paper production in Canada and the Provinces by Classes of Mills, 1919.

| Kind of Products | In Paper Mills Dans les papeteries | | | | | |
|---|---------------------------------------|-----------------|----------------------|-----------------|----------------------|-----------------|
| | Ontario | | Quebec | | Canada | |
| | Quantity Quantité | Value Valeur | Quantity Quantité | Value Valeur | Quantity Quantité | Value Valeur |
| | Tons | \$ | Tons | \$ | Tons | \$ |
| Newsprint Paper— | | | | | | |
| In rolls..... | - | - | 348 | 33,060 | 348 | 33,060 |
| In sheets..... | - | - | 778 | 67,395 | 778 | 67,395 |
| Hanging papers..... | - | - | 2,299 | 217,277 | 2,299 | 217,277 |
| Poster paper..... | 4 | 876 | - | - | 4 | 876 |
| Book and Writing Paper— | | | | | | |
| Book, wood fibre chief ingredient..... | 20,639 | 3,476,057 | 1,432 | 210,507 | 22,071 | 3,695,564 |
| Book, rags chief ingredient..... | - | - | - | - | - | - |
| Cover paper..... | 151 | 30,365 | - | - | 151 | 30,365 |
| Plate, map lithograph, etc..... | - | - | - | - | - | - |
| Cardboard, bristol board, etc..... | 330 | 79,400 | - | - | 330 | 79,400 |
| Coated paper..... | 6,447 | 1,388,835 | 1,577 | 369,738 | 8,024 | 1,758,573 |
| Wrapping paper..... | 310 | 155,269 | 4,539 | 1,620,325 | 4,849 | 1,775,594 |
| All other fine paper..... | 4 | 17,786 | 5,677 | 2,010,138 | 5,717 | 2,027,924 |
| Wrapping papers— | | | | | | |
| Manilla (rope, jute, tag, etc)..... | 1,062 | 133,200 | - | - | 1,062 | 133,200 |
| Heavy wrapping (mill wrapper)..... | - | - | 404 | 21,828 | 404 | 21,828 |
| Straw wrapping..... | - | - | - | - | - | - |
| Bogus or wood manilla..... | - | - | 4,803 | 477,923 | 4,803 | 477,923 |
| Kraft paper..... | 462 | 75,120 | 397 | 63,520 | 859 | 138,640 |
| All other wrapping paper..... | 1,371 | 251,679 | 1,193 | 125,670 | 2,565 | 377,349 |
| Boards— | | | | | | |
| Wood-pulp board..... | 9,871 | 559,121 | - | - | 9,871 | 559,121 |
| Straw board..... | 5,690 | 379,441 | - | - | 5,690 | 379,441 |
| News board..... | - | - | 802 | 82,156 | 802 | 82,156 |
| Binder's board..... | - | - | - | - | - | - |
| Trunk, leather and press boards..... | - | - | 440 | 74,800 | 440 | 74,800 |
| All other boards..... | 4,206 | 238,324 | 5,563 | 470,778 | 9,769 | 709,102 |
| Other Paper Products— | | | | | | |
| Tissue paper..... | 1,031 | 304,662 | - | - | 1,031 | 304,662 |
| Toilet paper..... | 1,219 | 265,299 | 615 | 73,800 | 1,834 | 339,099 |
| Blotting paper..... | - | - | - | 1,500 | - | 1,500 |
| Building, roofing and sheathing papers..... | 2,048 | 117,400 | 19,410 | 1,800,057 | 21,458 | 1,917,457 |
| Asbestos..... | - | - | - | - | - | - |
| Miscellaneous..... | 669 | 112,520 | 1,008 | 132,740 | 1,677 | 245,260 |
| All other Products— | | | | | | |
| Construction and repair work— | | | | | | |
| Buildings..... | - | 117,062 | - | 553,199 | - | 670,261 |
| Machinery..... | - | 41,102 | - | 6,324 | - | 47,426 |
| | - | 41,198 | - | 32,122 | - | 73,320 |
| Total... | - | 7,784,716 | - | 8,453,857 | - | 16,238,573 |

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Tableau II. — Production du papier au Canada, par provinces et par genres de fabriques, 1919.

| In Pulp and Paper Mills | | | | | | | | Espèces de produits |
|----------------------------------|-----------|----------|------------|----------|------------|----------|------------|---|
| Dans les pulperies et papeteries | | | | | | | | |
| British Columbia | | Ontario | | Quebec | | Canada | | |
| Colombie Britannique | | | | | | | | |
| Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value | |
| Quantité | Valeur | Quantité | Valeur | Quantité | Valeur | Quantité | Valeur | |
| Tons | \$ | Tons | \$ | Tons | \$ | Tons | \$ | |
| 123,593 | 8,145,147 | 343,767 | 23,376,188 | 238,692 | 16,486,229 | 706,052 | 48,007,564 | Papier à journaux— |
| 2,311 | 216,356 | 3,319 | 224,588 | 74,292 | 5,303,849 | 79,922 | 5,744,793 | En rouleaux. |
| - | - | 5,164 | 356,914 | - | - | 5,164 | 356,914 | En feuilles. |
| - | - | - | - | - | - | - | - | A tapisserie. |
| - | - | - | - | - | - | - | - | Pour affiches. |
| - | - | 6,763 | 998,496 | 2,760 | 416,400 | 9,523 | 1,414,896 | Papier à livres et pour écrire.— |
| - | - | - | - | 769 | 110,736 | 769 | 110,736 | A liv., élém. princ. en fib. de bois. |
| - | - | - | - | 520 | 75,800 | 520 | 75,800 | A liv., élém. princ. en chiffon. |
| - | - | - | - | - | - | - | - | Pour couverture de livres. |
| - | - | - | - | - | - | - | - | Enduit, à cartes géogr., à lithog. |
| - | - | - | - | - | - | - | - | Carton, bristol, etc. |
| - | - | 4,343 | 1,291,449 | 1,038 | 149,959 | 5,381 | 1,441,408 | Papier couché. |
| - | - | - | - | 893 | 160,740 | 893 | 160,740 | Papier à écrire. |
| - | - | - | - | - | - | - | - | Tous autres papiers fins. |
| - | - | 998 | 222,590 | 329 | 41,125 | 1,327 | 263,715 | Papier d'Emballage— |
| 1,505 | 52,675 | 2,837 | 184,661 | 714 | 79,624 | 5,056 | 316,960 | Manille, (cordage, jute, tag, etc.) |
| - | - | - | - | 449 | 40,410 | 449 | 40,410 | Gros papier d'emballage. |
| - | - | 903 | 100,600 | 3,721 | 384,797 | 4,624 | 485,397 | De paille pour emballage. |
| 7,901 | 940,550 | 579 | 94,928 | 24,055 | 3,762,675 | 32,535 | 4,798,153 | Façon manille ou manille de bois. |
| - | - | 1,980 | 472,300 | 4,033 | 453,543 | 6,013 | 925,843 | Papier Kraft. |
| - | - | - | - | - | - | - | - | Tous autres papiers d'emballage. |
| - | - | 48,036 | 2,491,642 | 30,754 | 2,473,709 | 78,790 | 4,965,351 | Cartons— |
| - | - | 5,191 | 346,280 | - | - | 5,191 | 346,280 | Cartons de pulpe de bois. |
| - | - | - | - | - | - | - | - | Carton de paille. |
| - | - | - | - | - | - | - | - | Carton pour impressions. |
| - | - | - | - | - | - | - | - | Carton pour reliure. |
| - | - | 19,361 | 1,272,895 | 7,764 | 502,900 | 27,125 | 1,775,795 | Cartons cuir à valises et d'impr. |
| - | - | - | - | - | - | - | - | Tous autres cartons. |
| - | - | - | - | 19 | 5,000 | 19 | 5,000 | Autres produits du papier— |
| - | - | - | - | 646 | 157,677 | 646 | 157,677 | Papier joseph ou papier pelure. |
| - | - | - | - | - | - | - | - | Papier de toilette. |
| - | - | - | - | 21 | 1,680 | 21 | 1,680 | Papier buvard. |
| - | - | - | - | - | - | - | - | Papier de toiture, de lambriss. |
| - | - | - | - | 13,379 | 910,165 | 13,379 | 910,165 | D'amiante. |
| - | - | - | - | - | 995,021 | - | 995,021 | Divers. |
| - | 100,000 | - | 74,406 | - | 350,075 | - | 524,481 | Tous autres produits— |
| - | 375,921 | - | 637,821 | - | 285,819 | - | 1,299,561 | Constructions et réparations— |
| - | - | - | - | - | - | - | - | Aux bâtiments. |
| - | 9,830,649 | - | 32,145,758 | - | 33,147,933 | - | 75,124,340 | A la machinerie. |
| - | - | - | - | - | - | - | - | Total. |

Table II. Paper production in Canada and the Provinces by Classes of Mills, 1919—*Concluded*.

| Kind of Products | In all Classes Dans toutes | | | |
|--|--|------------------|----------------------|-------------------|
| | British Columbia Colombie Britannique | | Ontario | |
| | Quantity Quantité | Value Valeur | Quantity Quantité | Value Valeur |
| | Tons | \$ | Tons | \$ |
| Newsprint Paper— | | | | |
| In rolls..... | 123,593 | 8,145,147 | 343,767 | 23,376,188 |
| In sheets..... | 2,311 | 216,356 | 3,319 | 224,588 |
| Hanging papers..... | - | - | 5,164 | 356,914 |
| Poster paper..... | - | - | 4 | 876 |
| Book and Writing Paper— | | | | |
| Book, wood fibre chief ingredient..... | - | - | 27,402 | 4,474,553 |
| Book, rags chief ingredient..... | - | - | - | - |
| Cover..... | - | - | 151 | 30,365 |
| Plate, map, lithograph, etc..... | - | - | - | - |
| Cardboard, bristol board, etc..... | - | - | 330 | 79,400 |
| Coated, paper..... | - | - | 6,447 | 1,388,835 |
| Writing paper..... | - | - | 4,653 | 1,446,718 |
| All other fine paper..... | - | - | 40 | 17,786 |
| Wrapping Papers— | | | | |
| Manilla (rope, jute, tag, etc.)..... | - | - | 2,060 | 355,790 |
| Heavy wrapping (mill wrapper)..... | 1,505 | 52,675 | 2,837 | 184,661 |
| Straw wrapping..... | - | - | - | - |
| Bogus or wood manilla..... | - | - | 963 | 100,600 |
| Kraft, paper..... | 7,901 | 940,550 | 1,041 | 170,048 |
| All other wrapping paper..... | - | - | 3,352 | 723,979 |
| Boards— | | | | |
| Wood pulp board..... | - | - | 57,907 | 3,050,763 |
| Straw board..... | - | - | 10,881 | 725,721 |
| News board..... | - | - | - | - |
| Binder's board..... | - | - | - | - |
| Trunk, leather and press boards | - | - | - | - |
| All other boards..... | - | - | 23,567 | 1,511,219 |
| Other Paper Products— | | | | |
| Tissue paper..... | - | - | 1,031 | 304,662 |
| Toilet paper..... | - | - | 1,219 | 265,299 |
| Blotting paper..... | - | - | - | - |
| Building, roofing and sheathing paper | - | - | 2,048 | 117,400 |
| Asbestos..... | - | - | - | - |
| Miscellaneous | - | - | 669 | 112,520 |
| All other products..... | - | - | - | 117,062 |
| Construction and repair work— | | | | |
| Buildings..... | - | 100,000 | - | 115,508 |
| Machinery..... | - | 375,921 | - | 679,019 |
| Total | - | 9,830,649 | - | 39,930,474 |

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Tableau II.—Production du papier au Canada, par provinces et par genres de fabriques, 1919—*fin*.

| of Paper Mills — papeteries | | | | |
|-----------------------------------|----------------------|---------------------------|----------------------|---|
| Québec | | Canada | | Espèces de produits |
| Quantity — Quantité | Value — Valeur | Quantity — Quantité | Value — Valeur | |
| Tons | \$ | Tons | \$ | |
| 239,040 | 16,519,289 | 706,400 | 48,040,624 | Papiers à journaux— |
| 75,070 | 5,371,244 | 80,700 | 5,812,188 | En rouleaux. |
| 2,299 | 217,277 | 7,463 | 574,191 | En feuilles. |
| — | — | 4 | 876 | A tapisserie. |
| | | | | Pour affiches. |
| 4,192 | 635,907 | 31,594 | 5,110,460 | Papier à livres et pour écrire— |
| 769 | 110,736 | 769 | 110,736 | A livres, élément principal en fibre de bois. |
| 520 | 75,800 | 671 | 106,165 | A livres, élément principal en chiffon. |
| — | — | — | — | Pour couvertures de livres. |
| — | — | 330 | 79,400 | Enduit, à cartes géographiques et lithographie. |
| 1,577 | 369,738 | 8,024 | 1,758,573 | Carton, bristol, etc. |
| 5,577 | 1,770,284 | 10,230 | 3,217,002 | Papier couché. |
| 6,570 | 2,170,878 | 6,610 | 2,188,664 | Papier à écrire. |
| | | | | Tous autres papiers fins. |
| 329 | 41,125 | 2,389 | 396,915 | Papier d'emballage— |
| 1,118 | 101,452 | 5,460 | 338,788 | Manille, (cordage, jute, tag.) |
| 449 | 40,410 | 449 | 40,410 | Gros papier d'emballage. |
| 8,524 | 862,720 | 9,427 | 963,320 | De paille pour emballage. |
| 24,452 | 3,826,195 | 33,394 | 4,936,793 | Façon manille ou manille de bois. |
| 5,226 | 579,213 | 8,578 | 1,303,192 | Papier Kraft. |
| | | | | Tous autres papiers d'emballage. |
| 30,754 | 2,473,709 | 88,661 | 5,524,472 | Cartons— |
| — | — | 10,881 | 725,721 | Cartons de pulpe de bois. |
| 802 | 82,156 | 802 | 82,156 | Cartons de paille. |
| — | — | — | — | Cartons pour impressions. |
| 440 | 74,800 | 440 | 74,800 | Cartons pour reliure. |
| 13,327 | 973,678 | 36,894 | 2,484,897 | Carton cuir, à valises et d'imp. |
| | | | | Tous autres cartons. |
| 19 | 5,000 | 1,050 | 309,662 | Autres produits du papier— |
| 1,261 | 231,477 | 2,480 | 496,776 | Papier joseph ou papier pelure. |
| — | 1,500 | — | 1,500 | Papier de toilette. |
| 19,431 | 1,801,737 | 21,479 | 1,919,137 | Papier buvard. |
| — | — | — | — | Papier de toiture, de lambrissage. |
| 14,387 | 1,042,905 | 15,056 | 1,155,425 | D'amiante. |
| — | 1,548,220 | — | 1,665,282 | Divers. |
| — | 356,399 | — | 571,907 | Tous autres produits— |
| — | 317,941 | — | 1,372,881 | Construction et réparations— |
| — | 41,601,790 | — | 91,362,913 | Aux bâtiments. |
| | | | | A la machinerie. |
| | | | | Total. |

Table III.—Pulpwood used by Provinces, 1918 and 1919.

Tableau III.—Bois à pulpe, 1918 et 1919, par provinces.

| Provinces | No. of Mills reporting — Nombre de fabriques faisant rapport 1919 | Quantity — Quantité | | Per cent distribution — Pourcentage 1919 | Total value — Valeur totale 1919 | Average value per cord — Valeur moyenne par corde | |
|---------------------------------------|---|---------------------------|-------------|--|--|---|-------|
| | | Cords | Cords | | | 1918 | 1919 |
| | | Cordes 1918 | Cordes 1919 | | | | |
| Canada | 66 | 2,210,744 | 2,428,706 | 100.00 | 31,347,686 | 11.26 | 12.90 |
| Quebec—Québec..... | 29 | 1,085,478 | 1,176,134 | 48.42 | 13,830,734 | 10.19 | 11.75 |
| Ontario—Ontario..... | 22 | 784,691 | 849,856 | 34.62 | 13,113,794 | 13.25 | 15.60 |
| British Columbia—Colombie Britannique | 5 | 218,774 | 250,358 | 10.31 | 2,789,697 | 11.13 | 11.15 |
| New Brunswick—Nouveau-Brunswick.... | 5 | 110,133 | 142,007 | 5.79 | 1,459,942 | 8.36 | 10.38 |
| Nova Scotia—Nouvelle-Ecosse..... | 5 | 11,668 | 20,751 | 0.86 | 153,519 | 6.32 | 7.40 |

Table IV.—Pulpwood by Kinds of Wood, 1918 and 1919.

Tableau IV.—Bois à Pulpe, 1918 et 1919, par essences.

| Kinds of Wood—Essences de bois | No. of Mills reporting — Nombre de fabriques faisant rapport 1919 | Quantity — Quantité | | Per cent distribution — Pourcentage 1919 | Total value — Valeur totale 1919 | Average value per cord — Valeur moyenne par corde | |
|----------------------------------|---|---------------------------|-------------|--|--|---|-------|
| | | Cords | Cords | | | 1918 | 1919 |
| | | Cordes 1918 | Cordes 1919 | | | | |
| Total all Woods—Total, tous bois | - | 2,210,744 | 2,428,706 | 100.00 | 31,347,686 | 11.26 | 12.90 |
| Spruce—Epinette..... | 61 | 1,638,733 | 1,787,868 | 73.61 | 23,673,783 | 11.52 | 13.24 |
| Balsam-Fir—Sapin-baumier..... | 31 | 447,243 | 490,327 | 20.19 | 6,077,368 | 10.28 | 12.39 |
| Hemlock—Pruche..... | 8 | 89,007 | 118,013 | 4.86 | 1,221,222 | 11.67 | 10.34 |
| Poplar—Peuplier..... | 4 | 9,885 | 7,228 | 0.30 | 98,413 | 10.21 | 13.61 |
| Jack-Pine—Pin gris..... | 3 | 25,851 | 15,402 | 0.64 | 149,844 | 9.84 | 9.72 |
| Other Kinds—Autres espèces..... | 2 | 25 | 9,868 | 0.40 | 127,056 | 5.00 | 12.89 |

Table V.—Pulpwood by Processes, 1918 and 1919.

Tableau V.—Bois à pulpe, 1918 et 1919, selon les procédés de fabrication.

| Processes—Procédés | No. of Mills reporting — Nombre de fabriques faisant rapport 1919 | Quantity — Quantité | | Per cent distribution — Pourcentage 1919 | Total value — Valeur totale 1919 | Average value per cord — Valeur moyenne par corde | |
|----------------------------------|---|---------------------------|-------------|--|--|---|-------|
| | | Cords | Cords | | | 1918 | 1919 |
| | | Cordes 1918 | Cordes 1919 | | | | |
| All processes—Tous procédés..... | - | 2,210,744 | 2,428,706 | 100.00 | 31,347,686 | 11.26 | 12.90 |
| Mechanical—Mécanique..... | 46 | 873,084 | 1,010,457 | 41.61 | 13,280,334 | 11.40 | 13.14 |
| Sulphite—Sulfite..... | 28 | 1,044,697 | 1,127,659 | 46.43 | 14,682,069 | 11.64 | 13.02 |
| Sulphate—Sulfate..... | 8 | 285,194 | 281,360 | 11.58 | 3,272,216 | 9.41 | 11.63 |
| Soda—Soude..... | 2 | 7,769 | 9,230 | 0.38 | 113,067 | 11.23 | 12.25 |

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Table VI.—Pulpwood 1919 by Provinces, Kinds of Wood and Processes.

Tableau VI.—Bois à pulpe, 1919, par provinces, essences de bois et procédés de fabrication.

| | Total quantity — Quantité totale | Total cost — Coût total | Average cost — Coût moyen | Mechani- cal — Méca- nique | Sulphite — Sulfite | Sulphate — Sulfate | Soda — Soude |
|---|--|-------------------------------------|---------------------------------------|--|--------------------------|--------------------------|--------------------|
| | tons | | | tons | tons | tons | tons |
| Pulp produced Pulpe fabriquée. | 1,716,089 | | | 990,902 | 552,115 | 158,475 | 4,597 |
| Quebec..... | 831,291 | - | - | 515,457 | 185,494 | 126,945 | 3,395 |
| Ontario..... | 597,827 | - | - | 351,572 | 235,122 | 9,931 | 1,202 |
| British Columbia—Colombie Britannique | 194,126 | - | - | 99,767 | 81,887 | 9,472 | - |
| New Brunswick—Nouveau-Brunswick.... | 75,186 | - | - | 6,447 | 56,612 | 12,127 | - |
| Nova Scotia—Nouvelle-Ecosse..... | 17,659 | - | - | 17,659 | - | - | - |
| Wood used (Total, all kinds)—Bois employé, total, toutes essences .. | 2,428,706 | \$ 31,347,686 | \$ 12.90 | 1,010,457 | 1,127,659 | 281,360 | 9,230 |
| Quebec..... | 1,176,134 | 13,830,734 | 11.75 | 543,029 | 410,115 | 216,099 | 6,891 |
| Ontario..... | 840,856 | 13,113,794 | 15.60 | 364,681 | 456,866 | 16,970 | 2,339 |
| British Columbia—Colombie Britannique | 250,358 | 2,789,697 | 11.15 | 74,361 | 158,572 | 17,425 | - |
| New Brunswick—Nouveau-Brunswick.... | 140,607 | 1,459,942 | 10.38 | 7,635 | 102,106 | 30,866 | - |
| Nova Scotia—Nouvelle-Ecosse..... | 20,751 | 153,519 | 7.40 | 20,751 | - | - | - |
| Spruce—Epinette | 1,787,868 | 23,673,783 | 13.24 | 780,499 | 803,022 | 201,516 | 2,831 |
| Quebec..... | 760,586 | 8,692,489 | 11.38 | 375,901 | 228,633 | 153,221 | 2,831 |
| Ontario..... | 779,442 | 12,268,151 | 15.73 | 336,106 | 435,139 | 8,197 | - |
| British Columbia—Colombie Britannique | 117,747 | 1,411,768 | 12.05 | 46,524 | 61,991 | 9,232 | - |
| New Brunswick—Nouveau-Brunswick.... | 111,425 | 1,184,061 | 10.62 | 3,300 | 77,259 | 30,866 | - |
| Nova Scotia—Nouvelle-Ecosse..... | 18,668 | 139,314 | 7.46 | 18,668 | - | - | - |
| Balsam Fir—Sapin-Baumier. | 480,636 | 5,970,043 | 12.42 | 195,546 | 222,212 | 62,878 | - |
| Quebec..... | 410,389 | 5,096,332 | 12.41 | 166,529 | 180,982 | 62,878 | - |
| Ontario..... | 39,227 | 584,964 | 14.91 | 22,844 | 16,383 | - | - |
| British Columbia—Colombie Britannique | 9,691 | 107,325 | 11.07 | 9,691 | - | - | - |
| New Brunswick—Nouveau-Brunswick.... | 29,182 | 275,881 | 9.45 | 4,335 | 24,847 | - | - |
| Nova Scotia—Nouvelle-Ecosse..... | 1,838 | 12,866 | 7.00 | 1,838 | - | - | - |
| Hemlock—Pruche... | 118,013 | 1,221,222 | 10.31 | 16,439 | 97,712 | 2,246 | 1,616 |
| Quebec..... | 2,146 | 25,364 | 11.81 | 530 | - | - | 1,616 |
| Ontario..... | 2,958 | 62,118 | 21.00 | - | 2,958 | - | - |
| British Columbia—Colombie Britannique | 112,664 | 1,132,401 | 10.05 | 15,664 | 94,754 | 2,246 | - |
| Nova Scotia—Nouvelle-Ecosse..... | 245 | 1,339 | 5.46 | 245 | - | - | - |
| Jack Pine—Pin gris | 15,402 | 149,844 | 9.72 | 4,243 | 2,386 | 8,773 | - |
| Ontario..... | 15,402 | 149,844 | 9.72 | 4,243 | 2,386 | 8,773 | - |
| Poplar—Peuplier..... | 7,228 | 98,413 | 13.61 | 2,045 | 500 | - | 4,683 |
| Quebec..... | 2,894 | 45,166 | 15.60 | 50 | 500 | - | 2,344 |
| Ontario..... | 3,827 | 48,717 | 12.72 | 1,488 | - | - | 2,339 |
| British Columbia—Colombie Britannique | 507 | 4,530 | 8.93 | 507 | - | - | - |
| All other (not specified)—Tous autres (non spécifiés)..... | 9,868 | 127,056 | 12.87 | 1,994 | 1,827 | 6,047 | - |
| Quebec..... | 119 | 1,383 | 11.62 | 19 | - | 100 | - |
| British Columbia—Colombie Britannique. | 9,749 | 125,673 | 12.89 | 1,975 | 1,827 | 5,947 | - |

Table VII. Materials used—Pulpwood Consumption by Kinds of Wood and Classes of Mills whether purchased or cut from own limits.

| Kind of wood by provinces | Pulp Mills Pulperies | | | | Pulp and Paper Pulperies et | |
|---------------------------|-------------------------|-----------|---|-----------|--------------------------------|-----------|
| | Purchased Achété | | From own limits Coupe chez le fabri- cant | | Purchased Achété | |
| | Quantity cords | Value | Quantity cords | Value | Quantity cords | Value |
| | Quantité cordes | Valeur | Quantité cordes | Valeur | Quantité cordes | Valeur |
| | | \$ | | \$ | | \$ |
| British Columbia | 84,346 | 816,723 | 27,098 | 292,427 | 45,810 | 581,144 |
| Spruce..... | 24,583 | 241,979 | 11,546 | 123,688 | 37,477 | 482,507 |
| Balsam fir..... | - | - | - | - | 1,724 | 19,178 |
| Hemlock..... | 59,763 | 574,744 | 15,552 | 168,739 | 6,354 | 77,029 |
| Poplar..... | - | - | - | - | 255 | 2,430 |
| All other..... | - | - | - | - | - | - |
| New Brunswick | 41,151 | 475,532 | 99,456 | 984,410 | - | - |
| Spruce..... | 31,151 | 375,532 | 80,274 | 808,529 | - | - |
| Balsam fir..... | 10,000 | 100,000 | 19,182 | 175,881 | - | - |
| Nova Scotia | 15,951 | 116,519 | 4,800 | 37,000 | - | - |
| Spruce..... | 13,868 | 102,314 | 4,800 | 37,000 | - | - |
| Balsam fir..... | 1,838 | 12,866 | - | - | - | - |
| Hemlock..... | 245 | 1,339 | - | - | - | - |
| Ontario..... | 191,115 | 2,904,510 | 54,492 | 598,057 | 239,256 | 4,045,461 |
| Spruce..... | 189,231 | 2,872,821 | 50,992 | 563,057 | 206,277 | 3,523,042 |
| Balsam Fir..... | 1,884 | 31,689 | 3,500 | 35,000 | 23,223 | 419,600 |
| Hemlock..... | - | - | - | - | - | - |
| Poplar..... | - | - | - | - | 3,827 | 48,717 |
| Jack Pine..... | - | - | - | - | 5,929 | 54,102 |
| Quebec..... | 130,607 | 1,195,827 | 339,468 | 3,155,824 | 258,698 | 3,814,137 |
| Spruce..... | 78,321 | 758,943 | 264,257 | 2,424,750 | 151,978 | 2,146,153 |
| Balsam Fir..... | 52,286 | 436,884 | 75,211 | 731,074 | 102,678 | 1,610,132 |
| Hemlock..... | - | - | - | - | 1,629 | 19,470 |
| Poplar..... | - | - | - | - | 2,394 | 38,166 |
| All other..... | - | - | - | - | 19 | 216 |
| Canada | 463,170 | 5,509,111 | 525,314 | 5,067,718 | 543,764 | 8,440,742 |
| Spruce..... | 337,154 | 4,351,589 | 411,869 | 3,957,024 | 395,732 | 6,151,702 |
| Balsam Fir..... | 66,008 | 581,439 | 97,893 | 941,955 | 127,625 | 2,048,910 |
| Hemlock..... | 60,008 | 576,083 | 15,552 | 168,739 | 7,983 | 96,499 |
| Poplar..... | - | - | - | - | 6,476 | 89,313 |
| Jack pine..... | - | - | - | - | 5,929 | 54,102 |
| All other..... | - | - | - | - | 19 | 216 |

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Tableau VII.—Matières premières employées—Consommation du bois de pulpe selon les essences de bois et genres de fabriques, soit qu'il ait été acheté ou coupé chez le fabricant.

| Mills — papeteries | | All mills making wood pulp — Toutes fabriques de pulpe de bois | | | | Essences de bois, par provinces |
|--|----------------------|--|----------------------|--|----------------------|---------------------------------|
| From own limits — Coupé chez le fabri- cant | | Purchased — Acheté | | From own limits — Coupé chez le fabri- cant | | |
| Quantity cords — Quantité cordes | Value — Valeur | Quantity cords — Quantité cordes | Value — Valeur | Quantity cords — Quantité cordes | Value — Valeur | |
| | | | | | | |
| 93,104 | 1,099,403 | 130,156 | 1,397,867 | 120,202 | 1,391,830 | Colombie Britannique |
| 44,141 | 571,594 | 62,060 | 724,486 | 55,687 | 695,282 | Epinette. |
| 7,967 | 88,147 | 1,724 | 19,178 | 7,967 | 88,147 | Sapin-baumier. |
| 30,995 | 311,889 | 66,117 | 651,773 | 46,547 | 480,628 | Pruche. |
| 252 | 2,100 | 255 | 2,430 | 252 | 2,100 | Peuplier. |
| 9,749 | 125,673 | — | — | 9,749 | 125,673 | Tous autres. |
| — | — | 41,151 | 475,532 | 99,456 | 984,410 | Nouveau-Brunswick |
| — | — | 31,151 | 375,532 | 80,274 | 808,529 | Epinette. |
| — | — | 10,000 | 100,000 | 19,182 | 175,811 | Sapin-baumier. |
| — | — | 15,951 | 116,519 | 4,800 | 37,000 | Nouvelle-Ecosse |
| — | — | 13,868 | 102,314 | 4,800 | 37,000 | Epinette. |
| — | — | 1,838 | 12,866 | — | — | Sapin-baumier. |
| — | — | 245 | 1,339 | — | — | Pruche. |
| 355,993 | 5,565,766 | 430,371 | 6,949,971 | 410,485 | 6,163,823 | Ontario |
| 332,942 | 5,309,231 | 395,508 | 6,395,863 | 383,934 | 5,872,288 | Epinette. |
| 10,620 | 98,675 | 25,107 | 451,289 | 14,120 | 133,675 | Sapin-baumier. |
| 2,958 | 62,118 | — | — | 2,958 | 62,118 | Pruche. |
| — | — | 3,827 | 48,717 | — | — | Peuplier. |
| 9,473 | 95,742 | 5,929 | 54,102 | 9,473 | 95,742 | Pin gris. |
| 447,361 | 5,664,946 | 389,305 | 5,009,964 | 786,829 | 8,820,770 | Québec |
| 266,030 | 3,332,643 | 230,299 | 2,905,096 | 530,287 | 5,757,393 | Epinette. |
| 180,214 | 2,318,242 | 154,964 | 2,047,016 | 255,425 | 3,049,316 | Sapin-baumier. |
| 517 | 5,894 | 1,629 | 19,470 | 517 | 5,894 | Pruche. |
| 500 | 7,000 | 2,394 | 38,166 | 500 | 7,000 | Peuplier. |
| 100 | 1,167 | 19 | 216 | 100 | 1,167 | Tous autres. |
| 896,458 | 12,330,115 | 1,006,934 | 13,949,853 | 1,421,772 | 17,397,833 | Canada |
| 643,113 | 9,213,468 | 732,886 | 10,503,291 | 1,054,982 | 13,170,492 | Epinette. |
| 198,801 | 2,505,064 | 193,633 | 2,630,349 | 296,694 | 3,447,019 | Sapin-baumier. |
| 34,470 | 379,901 | 67,991 | 672,582 | 50,022 | 548,640 | Pruche. |
| 752 | 9,100 | 6,476 | 89,313 | 752 | 9,100 | Peuplier. |
| 9,473 | 95,742 | 5,929 | 54,102 | 9,473 | 95,742 | Pin gris. |
| 9,849 | 126,840 | 19 | 216 | 9,849 | 126,840 | Tous autres. |

Table VIII.—Other Materials used in the manufacture of Wood Pulp, by Kinds and Classes of Mills for Provinces, 1919.

Tableau VIII. —Autres matières premières employées dans la fabrication de la pulpe de bois, par espèces et par genres de fabrication, dans les provinces, 1919.

| Kinds of materials by provinces Matières premières, par provinces | Pulp Mills Pulperies | | Pulp and Paper Mills Pulperies et pape- teries | | All mills making wood pulp Toutes fabriques de pulpe de bois | |
|--|-------------------------|------------------|--|------------------|---|------------------|
| | Tons Tonnes | Value Valeur | Tons Tonnes | Value Valeur | Tons Tonnes | Value Valeur |
| | | \$ | | \$ | | \$ |
| British Columbia -Colombie Britannique | - | 463,622 | - | 323,841 | - | 792,463 |
| Sulphur—Soufre..... tons | 6,796 | 271,581 | 4,605 | 179,373 | 11,404 | 450,954 |
| Lime Stone—Pierre calcaire..... " | 7,495 | 26,244 | 3,569 | 5,783 | 11,064 | 32,027 |
| Lime—Chaux..... " | 60,209 | 165,797 | 4,091 | 55,545 | 64,300 | 251,342 |
| Soda-Ash—Carbonate de soude..... lbs. | - | - | 48,000 | 853 | 48,000 | 853 |
| Bleach—Chlorure..... " | - | - | - | - | - | - |
| Sulphate of Soda—Sulfate de soude..... " | - | - | 3,822,200 | 57,287 | 3,822,000 | 57,287 |
| All other miscellaneous materials—Autres matières diverses..... | - | - | - | - | - | - |
| New Brunswick—Nouveau-Brunswick | - | 581,875 | - | - | - | 581,875 |
| Sulphur—Soufre..... tons | 14,960 | 199,541 | - | - | 14,960 | 199,541 |
| Limestone—Pierre calcaire..... " | - | - | - | - | - | - |
| Lime—Chaux..... " | 8,903 | 125,744 | - | - | 8,903 | 125,744 |
| Soda ash—Carbonate de soude..... lbs. | 84,900 | 2,327 | - | - | 84,900 | 2,327 |
| Bleach—Chlorure..... " | 3,555,839 | 80,949 | - | - | 3,555,839 | 80,949 |
| Sulphate of Soda—Sulfate de soude..... " | 6,120,850 | 73,004 | - | - | 6,120,850 | 73,004 |
| All other miscellaneous materials—Autres matières diverses..... | - | 100,310 | - | - | - | 100,310 |
| Nova Scotia Nouvelle-Ecosse..... | - | 11,784 | - | - | - | 11,784 |
| Sulphur—Soufre..... tons | - | - | - | - | - | - |
| Limestone—Pierre calcaire..... " | - | - | - | - | - | - |
| Lime—Chaux..... " | - | - | - | - | - | - |
| Soda ash—Carbonate de soude..... lbs. | - | - | - | - | - | - |
| Bleach—Chlorure..... " | - | - | - | - | - | - |
| Sulphate of Soda—Sulfate de soude..... " | - | - | - | - | - | - |
| All other miscellaneous materials—Autres matières diverses..... | - | 11,784 | - | - | - | 11,784 |
| Ontario—Ontario..... | - | 799,565 | - | 1,295,609 | - | 2,095,175 |
| Sulphur—Soufre..... tons | 13,001 | 382,922 | 16,982 | 511,870 | 29,983 | 894,792 |
| Limestone—Pierre calcaire..... " | 4,783 | 48,675 | 14,687 | 48,658 | 19,470 | 97,333 |
| Lime—Chaux..... " | 2,552 | 36,789 | 5,464 | 63,753 | 8,016 | 100,542 |
| Soda ash—Carbonate de soude..... lbs. | 9,056 | 324 | 1,752,062 | 39,773 | 1,761,118 | 40,097 |
| Bleach—Chlorure..... " | 12,677,442 | 291,575 | 926,788 | 20,030 | 13,604,230 | 311,605 |
| Sulphate of Soda—Sulfate de soude..... " | 1,293,578 | 27,074 | 6,203,875 | 91,096 | 7,497,453 | 118,170 |
| All other miscellaneous materials—Autres matières diverses..... | - | 12,207 | - | 520,429 | - | 532,636 |
| Quebec Québec..... | - | 1,126,611 | - | 1,512,451 | - | 2,639,062 |
| Sulphur—Soufre..... tons | 5,993 | 259,227 | 16,653 | 507,536 | 22,646 | 766,763 |
| Limestone—Pierre calcaire..... " | 14,610 | 112,005 | 18,661 | 30,042 | 33,271 | 142,047 |
| Lime—Chaux..... " | - | - | 25,247 | 261,158 | 25,247 | 261,158 |
| Soda ash—Carbonate de soude..... lbs. | 345,600 | 7,035 | 1,045,297 | 27,934 | 1,390,897 | 34,969 |
| Bleach—Chlorure..... " | - | - | 57,885 | 3,525 | 57,885 | 3,525 |
| Sulphate of Soda—Sulfate de soude..... " | 20,277,000 | 198,708 | 15,804,200 | 273,930 | 36,081,200 | 472,638 |
| All other miscellaneous materials—Autres matières diverses..... | - | 549,636 | - | 408,326 | - | 957,962 |
| Canada..... | - | 2,983,458 | - | 3,136,901 | - | 6,120,359 |
| Sulphur—Soufre..... tons | 40,750 | 1,113,271 | 38,243 | 1,198,779 | 78,993 | 2,312,050 |
| Limestone—Pierre calcaire..... " | 26,888 | 186,924 | 36,917 | 84,483 | 63,805 | 271,407 |
| Lime—Chaux..... " | 22,840 | 328,330 | 34,802 | 410,456 | 57,642 | 738,786 |
| Soda ash—Carbonate de soude..... lbs. | 439,556 | 9,686 | 2,845,359 | 68,560 | 3,284,915 | 78,246 |
| Bleach—Chlorure..... " | 17,526,859 | 399,598 | 984,673 | 23,555 | 18,511,532 | 423,153 |
| Sulphate of Soda—Sulfate de soude..... " | 26,397,850 | 271,712 | 25,830,075 | 422,313 | 52,227,925 | 694,025 |
| All other miscellaneous materials—Autres matières diverses..... | - | 673,937 | - | 928,755 | - | 1,602,692 |

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Table IX. -Quantity of wood used and pulp produced with average number of pounds of pulp produced per cord by classes of mills and processes for Canada and the provinces, 1919.

Tableau IX.—Quantité de bois employé et de pulpe fabriquée, avec le nombre de livres de pulpe produite par corde, par genres de fabriques et par procédés, pour le Canada et les provinces, 1919.

| Kinds of Pulp by Processes Espèces de pulpe selon les procédés | Pulp Mills—Pulperies | | | Pulp and Paper Mills Pulperies et papeteries | | | All mills manufacturing wood pulp Toutes fabriques de pulpe de bois | | |
|---|-----------------------|--------------------------|-----------------------------|---|--------------------------|-----------------------------|--|--------------------------|-----------------------------|
| | Total Wood used. | Total pulp produced | Quantity produced per cord | Total Wood used | Total Pulp produced | Quantity produced per cord | Total Wood used | Total Pulp produced | Quantity produced per cord |
| | Total du bois employé | Total de pulpe fabriquée | Quantité produite par corde | Total du bois employé | Total de pulpe fabriquée | Quantité produite par corde | Total du bois employé | Total de pulpe fabriquée | Quantité produite par corde |
| | Cords | Tons | Lbs. | Cords | Tons | Lbs. | Cords | Tons | Lbs. |
| Canada | 988,484 | 571,287 | 1,156 | 1,440,222 | 1,444,802 | 1,590 | 2,428,706 | 1,716,089 | 1,413 |
| Mechanical—Mécanique..... | 272,472 | 246,007 | 1,807 | 737,985 | 744,895 | 2,019 | 1,010,457 | 990,902 | 1,961 |
| Sulphite—Sulfite..... | 609,586 | 265,762 | 871 | 518,073 | 296,353 | 1,131 | 1,127,659 | 562,115 | 997 |
| Sulphate—Sulfate..... | 106,426 | 59,518 | 1,119 | 174,934 | 98,957 | 1,144 | 281,360 | 158,475 | 1,126 |
| Soda—Soude..... | - | - | - | 9,230 | 4,597 | 996 | 9,230 | 4,597 | 996 |
| British Columbia—Colombie Britannique | 111,444 | 51,740 | 929 | 138,914 | 142,386 | 2,050 | 250,358 | 191,126 | 1,551 |
| Mechanical—Mécanique..... | - | - | - | 74,361 | 99,767 | 2,689 | 74,361 | 99,767 | 2,689 |
| Sulphite—Sulfite..... | 111,444 | 51,740 | 929 | 47,128 | 33,147 | 1,407 | 158,572 | 84,887 | 1,070 |
| Sulphate—Sulfate..... | - | - | - | 17,425 | 9,472 | 1,087 | 17,425 | 9,472 | 1,087 |
| New Brunswick—Nouveau-Brunswick | 140,667 | 75,186 | 1,039 | - | - | - | 140,667 | 75,186 | 1,069 |
| Mechanical—Mécanique..... | 7,635 | 6,447 | 1,689 | - | - | - | 7,635 | 6,447 | 1,689 |
| Sulphite—Sulfite..... | 102,106 | 56,612 | 1,109 | - | - | - | 102,106 | 56,612 | 1,109 |
| Sulphate—Sulfate..... | 30,866 | 12,127 | 786 | - | - | - | 30,866 | 12,127 | 786 |
| Nova Scotia—Nouvelle-Ecosse | 20,751 | 17,659 | 1,702 | - | - | - | 20,751 | 17,659 | 1,702 |
| Mechanical—Mécanique..... | 20,751 | 17,659 | 1,702 | - | - | - | 20,751 | 17,659 | 1,702 |
| Ontario | 245,607 | 114,116 | 929 | 595,249 | 493,711 | 1,825 | 840,856 | 597,827 | 1,422 |
| Mechanical—Mécanique..... | 19,639 | 17,345 | 1,766 | 345,042 | 334,227 | 1,937 | 364,681 | 351,572 | 1,928 |
| Sulphite—Sulfite..... | 225,968 | 96,771 | 857 | 230,898 | 138,351 | 1,198 | 457,806 | 235,122 | 1,029 |
| Sulphate—Sulfate..... | - | - | - | 16,970 | 9,931 | 1,170 | 16,970 | 9,931 | 1,170 |
| Soda—Soude..... | - | - | - | 2,339 | 1,202 | 1,028 | 2,339 | 1,202 | 1,028 |
| Quebec—Québec | 470,075 | 312,586 | 1,330 | 706,059 | 518,705 | 1,469 | 1,176,134 | 831,291 | 1,414 |
| Mechanical—Mécanique..... | 224,447 | 204,556 | 1,823 | 318,582 | 310,901 | 1,952 | 543,029 | 515,457 | 1,898 |
| Sulphite—Sulfite..... | 170,058 | 60,639 | 713 | 240,047 | 124,855 | 1,040 | 410,115 | 185,494 | 905 |
| Sulphate—Sulfate..... | 75,560 | 47,391 | 1,254 | 140,539 | 79,554 | 1,132 | 216,090 | 126,945 | 1,175 |
| Soda—Soude..... | - | - | - | 6,891 | 3,395 | 987 | 6,891 | 3,395 | 987 |

Table X. - Materials used in manufacture of Paper by Kinds and Classes of Mills for the Provinces 1919.

Tableau X.—Matières premières employées dans la fabrication du papier, selon le genre de fabriques, dans les provinces, 1919.

| Kinds of materials Matières premières | Paper mills | | | Pulp and Paper mills | | | All classes of mills making paper | | |
|---|--|---|-----------|--|---|-----------|--|---|-----------|
| | Papeteries | | | Pulperies et papeteries | | | Toutes fabriques de papier | | |
| | Quan- tity pro- duced and used Tons 2,000 lb | Quan- tity pur- chased Tons 2,000 lb. | Value | Quan- tity pro- duced and used Tons 2,000 lb. | Quan- tity pur- chased Tons 2,000 lb. | Value | Quan- tity pro- duced and used Tons 2,000 lb. | Quan- tity pur- chased Tons 2,000 lb. | Value |
| | Quan- tité pro- duite et em- ployée Tonnes 2,000 liv | Quan- tité achetée Tonnes 2,000 liv | Valeur | Quan- tité pro- duite et em- ployée Tonnes 2,000 liv | Quan- tité achetée Tonnes 2,000 liv | Valeur | Quan- tité pro- duite et em- ployée Tonnes 2,000 liv | Quan- tité achetée Tonnes 2,000 liv | Valeur |
| British Columbia—Colombie Britannique | | | \$ | | | \$ | | | \$ |
| | - | - | - | 136,934 | 798 | 1,811,530 | 136,934 | 798 | 1,811,530 |
| Ground Wood-pulp—Pâte de bois.. | - | - | - | 98,657 | - | 1,591,193 | 98,657 | - | 1,591,193 |
| Soda fibre—Fibre traitée par la soude..... | - | - | - | - | - | - | - | - | - |
| Sulphite fibre bleached—Fibre au sulfite, blanchie..... | - | - | - | - | - | - | - | - | - |
| Sulphite fibre unbleached—Fibre au sulfite, non blanchie..... | - | - | - | 32,817 | 239 | 8,571 | 32,817 | 239 | 8,571 |
| Sulphate fibre (Kraft)—Fibre au sulfate (Kraft)..... | - | - | - | 5,460 | 359 | 33,979 | 5,460 | 359 | 33,979 |
| Other chemical fibre—Fibre traitée par d'autres produits chimiques. | - | - | - | - | - | - | - | - | - |
| Rags, etc.—Chiffons, etc..... | - | - | - | - | - | - | - | - | - |
| Old or waste paper—Vieux papiers | - | - | - | - | - | - | - | - | - |
| Straw—Paille..... | - | - | - | - | - | - | - | - | - |
| Manila Stock, etc.—Fibre de Manille, etc..... | - | - | - | - | - | - | - | - | - |
| All other stock—Toutes autres fibres | - | - | - | - | - | - | - | - | - |
| Soda ash—Carbonate de soude..... | - | - | - | - | 13 | 809 | - | 13 | 809 |
| Alum—Alun..... | - | - | - | - | 182 | 10,634 | - | 182 | 10,634 |
| Clay—Argile..... | - | - | - | - | 5 | 86 | - | 5 | 86 |
| Dyes and Colours—Teintures et couleurs..... | - | - | - | - | - | 2,746 | - | - | 2,746 |
| Other miscellaneous materials—Toutes autres matières diverses..... | - | - | - | - | - | 163,512 | - | - | 163,512 |
| Ontario | - | 62,798 | 4,302,524 | 395,957 | 69,542 | 4,693,998 | 395,957 | 132,340 | 8,996,532 |
| Ground wood-pulp—Pâte de bois.. | - | 3,128 | 108,886 | 303,384 | 15,356 | 534,605 | 303,384 | 18,484 | 643,491 |
| Soda fibre—Fibre traitée par la soude | - | 716 | 81,303 | - | 675 | 83,418 | - | 1,391 | 164,721 |
| Sulphite fibre bleached—Fibre au sulfite, blanchie..... | - | 6,762 | 844,845 | 3,010 | 4,309 | 754,920 | 3,010 | 11,071 | 1,599,765 |
| Sulphite fibre unbleached—Fibre au sulfite, non blanchie..... | - | 10,390 | 818,149 | 89,221 | 11,108 | 750,959 | 89,221 | 21,498 | 1,569,108 |
| Sulphate fibre (Kraft)—Fibre au sulfate (Kraft)..... | - | 1,643 | 145,819 | 342 | 43 | 3,504 | 342 | 1,686 | 149,323 |
| Other chemical fibre—Fibre traitée par d'autres produits chimiques | - | - | - | - | - | - | - | - | - |
| Rags, etc.—Chiffons, etc..... | - | 95 | 4,766 | - | 571 | 75,745 | - | 666 | 80,511 |
| Old or waste paper—Vieux papiers.. | - | 30,789 | 952,287 | - | 19,100 | 448,688 | - | 49,889 | 1,400,975 |
| Straw—Paille..... | - | 750 | 5,719 | - | 455 | 5,005 | - | 1,205 | 10,724 |
| Manila, Stock, etc.—Fibre de Manille, etc..... | - | 350 | 35,241 | - | 13 | 390 | - | 363 | 35,631 |
| All other stock—Toutes autres fibres | - | 313 | 94,183 | - | 11,876 | 485,312 | - | 12,189 | 579,495 |
| Soda ash—Carbonate de soude..... | - | 664 | 29,106 | - | 52 | 3,047 | - | 716 | 32,153 |
| Alum—Alun..... | - | 1,042 | 44,745 | - | 3,137 | 145,511 | - | 4,179 | 190,256 |
| Clay—Argile..... | - | 6,156 | 157,499 | - | 2,847 | 82,015 | - | 9,003 | 239,514 |
| Dyes and Colours—Teintures et couleurs..... | - | - | 38,720 | - | - | 36,581 | - | - | 75,301 |
| Other miscellaneous materials—Toutes autres matières diverses..... | - | - | 941,256 | - | - | 1,284,298 | - | - | 2,225,554 |

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Table X.—Materials used in manufacture of Paper by Kinds and Classes of Mills for the Provinces 1919—*Concluded*.Tableau X.—Matières premières employées dans la fabrication du papier, selon le genre de fabriques, dans les provinces, 1919—*fin*.

| Kinds of materials — Matières premières | Paper mills — Papeteries | | | Pulp and Paper mills — Pulperies et papeteries | | | All classes of mills making paper — Toutes fabriques de papier | | |
|---|--|---|------------------|--|---|------------------|--|---|-------------------|
| | Quan- tity pro- duced and used Tons 2,000 lb. | Quan- tity pur- chased Tons 2,000 lb. | Value | Quan- tity pro- duced and used Tons 2,000 lb. | Quan- tity pur- chased Tons 2,000 lb. | Value | Quan- tity pro- duced and used Tons 2,000 lb. | Quan- tity pur- chased Tons 2,000 lb. | Value |
| | Quan- tité pro- duite et em- ployée Tonnes 2,000 liv | Quan- tité achetée Tonnes 2,000 liv | Valeur | Quan- tité pro- duite et em- ployée Tonnes 2,000 liv | Quan- tité achetée Tonnes 2,000 liv | Valeur | Quan- tité pro- duite et em- ployée Tonnes 2,000 liv | Quan- tité achetée Tonnes 2,000 liv | Valeur |
| | | | \$ | | | \$ | | | \$ |
| Quebec | - | 61,605 | 4,373,571 | 388,599 | 104,127 | 2,623,311 | 388,599 | 165,732 | 6,996,882 |
| Ground wood-pulp—Pâte de bois..... | - | 9,263 | 274,072 | 285,984 | 17,239 | 453,943 | 285,984 | 26,502 | 728,015 |
| Soda fibre—Fibre traitée à la soude | - | 298 | 38,319 | 1,423 | 133 | 10,925 | 1,423 | 431 | 49,244 |
| Sulphite fibre bleached—Fibre au sulfite, blanchie..... | - | 6,396 | 740,541 | 6,653 | 965 | 90,639 | 6,653 | 7,361 | 831,180 |
| Sulphite fibre unbleached—Fibre au sulfite, non blanchie..... | - | 6,775 | 526,900 | 66,416 | 15,725 | 997,290 | 66,416 | 22,500 | 1,524,190 |
| Sulphate fibre (Kraft)—Fibre au sulfate (Kraft)..... | - | 1,611 | 139,075 | 28,123 | 2,608 | 116,483 | 28,123 | 4,219 | 255,558 |
| Other chemical fibre—Fibre traitée par d'autres produits chimiques.. | - | - | - | - | - | - | - | - | - |
| Rags, etc.—Chiffons, etc..... | - | 15,299 | 1,248,480 | - | 470 | 38,018 | - | 15,769 | 1,286,498 |
| Old or waste paper—Vieux papiers.. | - | 12,335 | 339,076 | - | 733 | 42,019 | - | 13,068 | 381,095 |
| Straw—Paille..... | - | 244 | 4,680 | - | - | - | - | 244 | 4,680 |
| Manila, Stock, etc.—Fibre de Manille, etc..... | - | 1,097 | 60,510 | - | 530 | 32,745 | - | 1,627 | 93,255 |
| All other stock, etc.—Toutes autres fibres..... | - | 3,652 | 281,048 | - | - | - | - | 3,652 | 281,048 |
| Soda ash—Carbonate de soude..... | - | 115 | 6,917 | - | 20,721 | 6,842 | - | 20,836 | 13,759 |
| Alum—Alun..... | - | 1,011 | 53,171 | - | 7,709 | 159,214 | - | 8,720 | 212,385 |
| Clay—Argile..... | - | 2,233 | 24,433 | - | 37,294 | 40,668 | - | 39,527 | 65,101 |
| Dyes and Colours—Teintures et couleurs..... | - | 97 | 49,050 | - | - | 122,267 | - | 97 | 171,317 |
| Other miscellaneous materials—Toutes autres matières diverses..... | - | 1,179 | 587,299 | - | - | 512,258 | - | 1,179 | 1,099,557 |
| Canada | - | 124,403 | 8,676,095 | 921,490 | 174,467 | 9,128,839 | 921,490 | 298,870 | 17,804,934 |
| Ground wood-pulp—Pâte de bois.. | - | 12,391 | 382,958 | 688,025 | 32,595 | 2,579,741 | 688,025 | 44,986 | 2,962,699 |
| Soda fibre—Fibre traitée par la soude.. | - | 1,014 | 119,622 | 1,423 | 808 | 94,343 | 1,423 | 1,822 | 213,965 |
| Sulphite fibre bleached—Fibre au sulfite, blanchie..... | - | 13,158 | 1,585,386 | 9,663 | 5,274 | 845,559 | 9,663 | 18,432 | 2,430,945 |
| Sulphite fibre unbleached—Fibre au sulfite, non blanchie..... | - | 17,165 | 1,345,049 | 188,454 | 27,072 | 1,756,820 | 188,454 | 44,237 | 3,101,869 |
| Sulphate fibre (Kraft)—Fibre au sulfate (Kraft). | - | 3,254 | 284,894 | 33,925 | 3,010 | 153,966 | 33,925 | 6,264 | 438,860 |
| Other chemical fibre. Fibre traitée par d'autres produits chimiques.. | - | - | - | - | - | - | - | - | - |
| Rags, etc.—Chiffons, etc..... | - | 15,394 | 1,253,246 | - | 1,041 | 113,763 | - | 16,435 | 1,367,009 |
| Old or waste paper—Vieux papiers... | - | 43,124 | 1,291,363 | - | 19,833 | 490,707 | - | 62,957 | 1,782,070 |
| Straw—Paille | - | 994 | 10,399 | - | 455 | 5,005 | - | 1,449 | 15,404 |
| Manila, Stock, etc.—Fibre de Manille, etc..... | - | 1,447 | 95,751 | - | 543 | 33,135 | - | 1,990 | 128,886 |
| All other stock—Toutes autres fibres..... | - | 3,965 | 375,231 | - | 11,876 | 485,312 | - | 15,841 | 860,543 |
| Soda ash—Carbonate de soude..... | - | 779 | 36,023 | - | 20,786 | 10,698 | - | 21,565 | 46,721 |
| Alum—Alun..... | - | 2,053 | 97,916 | - | 11,028 | 315,359 | - | 13,081 | 413,275 |
| Clay—Argile..... | - | 8,389 | 181,932 | - | 40,146 | 122,769 | - | 48,535 | 304,701 |
| Dyes and Colours—Teintures et couleurs..... | - | 97 | 87,770 | - | - | 161,594 | - | 97 | 249,364 |
| Other miscellaneous materials—Toutes autres matières diverses..... | - | 1,179 | 1,528,555 | - | - | 1,960,068 | - | 1,179 | 3,488,623 |

Table XI.—Fuel Consumption by Classes of Mills and Provinces, 1919.

| Kinds of fuel by provinces | Pulp Mills Pulperies | | | | Pulp and Paper Mills Pulperies et papeteries | | | |
|------------------------------------|-------------------------|-----------|---------------------|---------|---|---------|---------------------|-----------|
| | Canadian Canadien | | Foreign Etranger | | Canadian Canadien | | Foreign Etranger | |
| | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
| | Quantité | Valeur | Quantité | Valeur | Quantité | Valeur | Quantité | Valeur |
| British Columbia | | | | | | | | |
| Bituminous Coal, slack... | 13,137 | 92,652 | - | - | 6,962 | 58,924 | - | - |
| Bituminous Coal, lump | - | - | - | - | - | - | - | - |
| Bituminous Coal, run of mine | - | - | - | - | - | - | - | - |
| Anthracite Coal, lump.... | - | - | - | - | - | - | - | - |
| Lignite coal..... | - | - | - | - | - | - | - | - |
| Coke..... | - | - | - | - | - | - | 345 | 949 |
| Gasoline..... gal. | - | - | - | - | 51,544 | 15,281 | - | - |
| Oil (fuel)..... | 606,670 | 43,554 | - | - | - | - | 13,733,452 | 690,758 |
| Wood..... cords | 8,600 | 114,380 | - | - | 1,591 | 6,383 | - | - |
| Gas..... m.c.ft. | - | - | - | - | - | - | - | - |
| Other fuel (Blacksmith's coal).... | - | - | - | - | - | - | - | 740 |
| New Brunswick | | | | | | | | |
| Bituminous coal, slack.... | 146 | 1,095 | - | - | - | - | - | - |
| Bituminous coal, lump. | - | - | - | - | - | - | - | - |
| Bituminous coal, run of mine. | 114 | 863,412 | - | - | - | - | - | - |
| Anthracite coal, lump..... | - | - | 17 | 190 | - | - | - | - |
| Lignite coal..... | - | - | 303 | 1,667 | - | - | - | - |
| Coke..... | - | - | - | - | - | - | - | - |
| Gasoline..... gal. | - | - | - | - | - | - | - | - |
| Oil (fuel)..... | - | - | - | - | - | - | - | - |
| Wood..... cords | 131 | 524 | - | - | - | - | - | - |
| Gas..... m.c.ft. | - | - | - | - | - | - | - | - |
| Other fuel | - | - | - | - | - | - | - | - |
| Nova Scotia | | | | | | | | |
| Bituminous coal, slack.... | - | - | - | - | - | - | - | - |
| Bituminous coal, lump..... | - | - | - | - | - | - | - | - |
| Bituminous coal, run of mine. | - | - | - | - | - | - | - | - |
| Anthracite coal, lump..... | - | - | - | - | - | - | - | - |
| Lignite coal..... | - | - | - | - | - | - | - | - |
| Coke..... | - | - | - | - | - | - | - | - |
| Gasoline..... gal. | - | - | - | - | - | - | - | - |
| Oil (fuel.)..... | - | - | - | - | - | - | - | - |
| Wood..... cords | - | - | - | - | - | - | - | - |
| Gas..... m.c.ft. | - | - | - | - | - | - | - | - |
| Other fuel | - | - | - | - | - | - | - | - |
| Ontario | | | | | | | | |
| Bituminous coal, slack.... | - | - | 49,559 | 339,689 | - | - | 196,071 | 1,438,637 |
| Bituminous coal, lump..... | - | - | 50 | 400 | - | - | 149,978 | 972,831 |
| Bituminous coal, run of mine.. | - | - | 20,000 | 219,343 | - | - | 50,419 | 334,453 |
| Anthracite coal, lump.... | - | - | - | - | - | - | - | - |
| Lignite coal. | - | - | - | - | - | - | 64 | 199 |
| Coke..... | - | - | - | - | - | - | - | - |
| Gasoline..... gal. | - | - | - | - | - | - | - | - |
| Oil (fuel)..... | - | - | - | - | - | - | - | - |
| Wood..... cords | - | - | - | - | 668 | 3,192 | - | - |
| Gas..... m.c.ft. | - | - | - | - | - | - | - | - |
| Other fuel | - | - | - | - | - | 48,980 | - | - |
| Quebec | | | | | | | | |
| Bituminous coal, slack.... | - | - | 29,216 | 340,080 | - | - | 139,171 | 1,192,426 |
| Bituminous coal, lump. | - | - | 2,366 | 23,609 | - | - | 71,984 | 537,417 |
| Bituminous coal, run of mine. | 80,596 | 699,262 | - | - | 3,000 | 31,800 | 171,125 | 1,546,040 |
| Anthracite coal, lump..... | - | - | 347 | 4,945 | - | - | - | - |
| Lignite coal..... | - | - | 1,252 | 6,455 | - | - | 7,850 | 52,202 |
| Coke..... | - | - | - | - | - | - | - | - |
| Gasoline..... gal. | 630 | 207 | - | - | - | - | - | - |
| Oil (fuel)..... | - | - | - | - | 54,921 | 3,953 | - | - |
| Wood..... cords | 923 | 985 | - | - | 21,245 | 107,132 | - | - |
| Gas..... m.c.ft. | - | - | - | - | - | - | - | - |
| Other fuel | - | 30,150 | - | - | - | - | - | - |
| Canada | | | | | | | | |
| Bituminous coal, slack..... | 13,285 | 93,747 | 78,775 | 679,769 | 6,962 | 58,924 | 335,242 | 2,631,063 |
| Bituminous coal, lump..... | - | - | 2,416 | 24,009 | - | - | 221,962 | 1,510,248 |
| Bituminous coal, run of mine. | 195,052 | 1,562,674 | 20,000 | 219,343 | 3,000 | 31,800 | 221,544 | 1,880,493 |
| Anthracite coal, lump..... | - | - | 344 | 5,135 | - | - | - | - |
| Lignite coal..... | - | - | 1,555 | 8,122 | - | - | 7,914 | 52,401 |
| Coke..... | - | - | - | - | - | - | 345 | 949 |
| Gasoline..... gal. | 630 | 207 | - | - | 51,544 | 15,281 | - | - |
| Oil (fuel)..... | 606,670 | 43,554 | - | - | 54,921 | 3,953 | 13,733,452 | 690,758 |
| Wood..... cords | 9,654 | 115,889 | - | - | 23,504 | 116,707 | - | - |
| Gas..... m.c.ft. | - | - | - | - | - | - | - | - |
| Other fuel | - | 30,150 | - | - | - | 48,980 | - | - |
| Blacksmith's coal..... tons | - | - | - | - | - | - | 30 | 740 |

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Tableau XI.—Consommation de combustible, par genres de fabriques et par provinces, 1919.

| Paper Mills Papeteries | | | | All Mills Toutes fabriques | | | | Sortes de combustibles, par provinces |
|---------------------------|-----------------|----------------------|-----------------|-------------------------------|-----------------|----------------------|-----------------|--|
| Canadian Canadien | | Foreign Etranger | | Canadian Canadien | | Foreign Etranger | | |
| Quantity Quantité | Value Valeur | Quantity Quantité | Value Valeur | Quantity Quantité | Value Valeur | Quantity Quantité | Value Valeur | |
| | \$ | | \$ | | \$ | | \$ | |
| - | - | - | - | 20,099 | 151,576 | - | - | Colombie Britannique |
| - | - | - | - | - | - | - | - | Charbon bitumineux, menu. |
| - | - | - | - | - | - | - | - | Charbon bitumineux, morceaux. |
| - | - | - | - | - | - | - | - | Charbon bitumineux, tout venant. |
| - | - | - | - | - | - | - | - | Charbon anthracite, morceaux. |
| - | - | - | - | - | - | - | - | Charbon lignite. |
| - | - | - | - | - | - | 345 | 949 | Coke. |
| - | - | - | - | 51,544 | 15,281 | - | - | Gazoline. |
| - | - | - | - | 606,670 | 43,554 | 13,733,452 | 690,758 | Huile (combustible). |
| - | - | - | - | 10,191 | 120,763 | - | - | Bois. |
| - | - | - | - | - | - | - | - | Gaz. |
| - | - | - | - | - | - | 30 | 740 | Aut. combus. (charb. de forgeron). |
| - | - | - | - | - | - | - | - | Nouveau-Brunswick. |
| - | - | - | - | 146 | 1,095 | - | - | Charbon bitumineux, menu. |
| - | - | - | - | - | - | - | - | Charbon bitumineux, morceaux. |
| - | - | - | - | 114,456 | 863,412 | - | - | Charbon bitumineux, tout venant. |
| - | - | - | - | - | - | 17 | 190 | Charbon anthracite, morceaux. |
| - | - | - | - | - | - | 303 | 1,667 | Charbon lignite. |
| - | - | - | - | - | - | - | - | Coke. |
| - | - | - | - | - | - | - | - | Gazoline. |
| - | - | - | - | - | - | - | - | Huile (combustible) |
| - | - | - | - | 131 | 524 | - | - | Bois. |
| - | - | - | - | - | - | - | - | Gaz. |
| - | - | - | - | - | - | - | - | Autres combustibles. |
| - | - | - | - | - | - | - | - | Nouvelle-Ecosse |
| - | - | - | - | - | - | - | - | Charbon bitumineux, menu. |
| - | - | - | - | - | - | - | - | Charbon bitumineux, morceaux. |
| - | - | - | - | - | - | - | - | Charbon bitumineux, tout venant. |
| - | - | - | - | - | - | - | - | Charbon anthracite, morceaux. |
| - | - | - | - | - | - | - | - | Charbon lignite. |
| - | - | - | - | - | - | - | - | Coke. |
| - | - | - | - | - | - | - | - | Gazoline. |
| - | - | - | - | - | - | - | - | Huile (combustible) |
| - | - | - | - | - | - | - | - | Bois. |
| - | - | - | - | - | - | - | - | Gaz. |
| - | - | - | - | - | - | - | - | Autres combustibles |
| - | - | 36,201 | 214,880 | - | - | 281,831 | 1,993,206 | Ontario |
| - | - | 5,862 | 40,915 | - | - | 155,890 | 1,014,146 | Charbon bitumineux, menu. |
| - | - | 12,034 | 67,072 | - | - | 83,353 | 620,868 | Charbon bitumineux, morceaux. |
| - | - | - | - | - | - | - | - | Charbon bitumineux, tout venant. |
| - | - | - | - | - | - | 64 | 199 | Charbon anthracite, morceaux. |
| - | - | - | - | - | - | - | - | Charbon lignite. |
| - | - | - | - | - | - | - | - | Coke |
| - | - | 1,000 | 330 | - | - | 1,000 | 330 | Gazoline. |
| - | - | - | - | - | - | - | - | Huile (combustible). |
| - | - | - | - | 668 | 3,192 | - | - | Bois. |
| 396 | 396 | - | - | 396 | 396 | - | - | Gaz. |
| - | - | - | - | - | 48,980 | - | - | Autres combustibles. |
| - | - | - | - | - | - | - | - | Québec |
| 562 | 4,131 | 8,650 | 62,713 | 562 | 4,131 | 177,037 | 1,595,219 | Charbon bitumineux, menu. |
| 1,160 | 9,563 | 624 | 4,456 | 1,160 | 9,563 | 74,974 | 565,482 | Charbon bitumineux, morceaux. |
| 8,173 | 70,779 | 29,870 | 242,142 | 91,769 | 801,841 | 200,995 | 1,788,182 | Charbon bitumineux, tout venant. |
| - | - | 6 | 72 | - | - | 353 | 5,017 | Charbon anthracite, morceaux. |
| - | - | 650 | 5,200 | - | - | 9,752 | 63,857 | Charbon, lignite. |
| - | - | - | - | - | - | - | - | Coke. |
| 415 | 145 | - | - | 1,045 | 352 | - | - | Gazoline. |
| 2,275 | 455 | - | - | 57,196 | 4,408 | - | - | Huile (combustible). |
| 304 | 1,538 | - | - | 22,472 | 109,655 | - | - | Bois. |
| - | - | - | - | - | - | - | - | Gaz. |
| - | - | - | - | - | 30,150 | - | - | Autres combustibles. |
| - | - | - | - | - | - | - | - | Canada |
| 562 | 4,131 | 44,851 | 277,593 | 20,807 | 156,802 | 458,868 | 3,588,425 | Charbon bitumineux, menu. |
| 1,160 | 9,563 | 6,486 | 45,371 | 1,160 | 9,563 | 230,864 | 1,579,628 | Charbon bitumineux, morceaux. |
| 8,173 | 70,779 | 41,904 | 309,214 | 206,225 | 1,665,253 | 284,348 | 2,409,050 | Charbon bitumineux, tout venant. |
| - | - | 6 | 72 | - | - | 353 | 5,017 | Charbon anthracite, morceaux. |
| - | - | 650 | 5,200 | - | - | 10,119 | 65,723 | Charbon lignite. |
| - | - | - | - | - | - | 345 | 949 | Coke. |
| 415 | 145 | 1,000 | 330 | 52,589 | 15,633 | 1,000 | 330 | Gazoline. |
| 2,275 | 455 | - | - | 663,866 | 47,962 | 13,733,452 | 690,758 | Huile (combustible). |
| 304 | 1,538 | - | - | 33,462 | 234,134 | - | - | Bois. |
| 396 | 396 | - | - | 396 | 396 | - | - | Gaz. |
| - | - | - | - | - | 79,130 | - | - | Autres combustibles. |
| - | - | - | - | - | - | 30 | 740 | Charbon de forgeron. |

Table XII. Capital invested in the Pulp and Paper industry, by Provinces and Classes of Mills, 1919.

| Items of Capital by Provinces | In Paper Mills | In Pulp Mills |
|---|---------------------|--------------------|
| | Dans les papeteries | Dans les pulperies |
| British Columbia | | |
| Land, buildings and fixtures..... | - | 1,976,007 |
| Machinery and tools..... | - | 3,416,470 |
| Materials on hand, stock in process, etc..... | - | 621,461 |
| Cash, trading and operating accounts, and bills receivable..... | - | 374,183 |
| Total Capital | - | 6,388,121 |
| New Brunswick | | |
| Land, buildings and fixtures..... | - | 5,601,248 |
| Machinery and tools..... | - | 2,183,527 |
| Materials on hand, stocks in process, etc..... | - | 2,615,502 |
| Cash, trading and operating accounts, and bills receivable..... | - | 1,560,500 |
| Total Capital | - | 11,960,778 |
| Nova Scotia | | |
| Land, buildings and fixtures..... | - | 550,849 |
| Machinery and tools..... | - | 278,000 |
| Materials on hand, stocks in process, etc..... | - | 50,845 |
| Cash, trading and operating accounts, and bills receivable..... | - | 328,560 |
| Total Capital | - | 1,208,255 |
| Ontario | | |
| Land, buildings and fixtures..... | 2,219,059 | 4,617,400 |
| Machinery and tools..... | 1,851,557 | 7,754,233 |
| Materials on hand, stocks in process, etc..... | 816,160 | 2,487,126 |
| Cash, trading and operating accounts, and bills receivable..... | 1,816,980 | 6,716,825 |
| Total Capital | 6,703,756 | 21,575,584 |
| Quebec | | |
| Land, buildings and fixtures..... | 4,937,019 | 16,031,475 |
| Machinery and tools..... | 1,960,379 | 4,286,673 |
| Materials on hand, stocks in process, etc..... | 1,686,774 | 6,291,969 |
| Cash, trading and operating accounts, and bills receivable..... | 1,265,348 | 2,153,733 |
| Total Capital | 9,849,520 | 28,763,850 |
| Canada | | |
| Land, buildings and fixtures..... | 7,156,078 | 28,776,979 |
| Machinery and tools..... | 3,811,936 | 17,918,903 |
| Materials on hand, stocks in process, etc..... | 2,502,934 | 12,066,903 |
| Cash, trading and operating accounts, and bills receivable.... | 3,082,328 | 11,133,801 |
| Total Capital | 16,553,276 | 69,896,586 |

Table XIII. Equipment in mills making Ground Wood Pulp by Classes of Mills, and Provinces

| Schedules | British Columbia | New Brunswick | Nova Scotia |
|--|----------------------|-------------------|-----------------|
| | Colombie-Britannique | Nouveau-Brunswick | Nouvelle-Ecosse |
| Pulp mills— | | | |
| Number of grinders..... | - | 5 | 22 |
| Capacity per 24 hours, tons..... | - | 25 | 142 |
| Horse power used on grinders..... | - | 2,000 | 4,925 |
| Yearly capacity of mill, dry weight, tons.... | - | 7,500 | 24,200 |
| Pulp and Paper mills— | | | |
| Number of grinders... | 56 | - | - |
| Capacity, per 24 hours, tons..... | 360 | - | - |
| Horse power used on grinders..... | 24,400 | - | - |
| Yearly capacity of mill, dry weight, tons..... | 111,600 | - | - |
| All mills making ground wood pulp— | | | |
| Number of grinders..... | 56 | 5 | 22 |
| Capacity, per 24 hours, tons..... | 360 | 25 | 142 |
| Horsepower used on grinders..... | 24,400 | 2,000 | 4,925 |
| Yearly capacity of mill, dry weight, tons..... | 111,600 | 7,500 | 24,200 |

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Tableau XII. Capital placé dans l'industrie de la pulpe et du papier, par provinces et genres de fabriques, 1919.

| In Pulp and Paper Mills Dans les pulperies et papeteries | In all classes of Mills Dans tous genres de fabriques | Répartition du capital, par provinces |
|---|--|--|
| Colombie Britannique | | |
| 22,055,912 | 24,031,919 | Terrain, bâtiments et agencement. |
| 9,342,053 | 12,758,523 | Machinerie et outillage. |
| 3,547,450 | 4,168,911 | Matières en mains, produits en cours de fabrication, etc. |
| 1,882,591 | 2,256,774 | Caisse, comptes et billets à recevoir. |
| 36,828,006 | 43,216,127 | Total du capital. |
| Nouveau-Brunswick | | |
| - | 5,601,248 | Terrain, bâtiments et agencement. |
| - | 2,183,527 | Machinerie et outillage. |
| - | 2,615,503 | Matières en mains, produits en cours de fabrication, etc. |
| - | 1,560,500 | Caisse, comptes et billets à recevoir. |
| - | 11,960,778 | Total du capital. |
| Nouvelle-Ecosse. | | |
| - | 550,849 | Terrain, bâtiments et agencement. |
| - | 278,000 | Machinerie et outillage. |
| - | 50,846 | Matières en mains, produits en cours de fabrications, etc. |
| - | 328,560 | Caisse, comptes et billets à recevoir. |
| - | 1,209,255 | Total du capital. |
| Ontario | | |
| 31,436,870 | 38,273,329 | Terrain, bâtiments et agencement. |
| 18,892,421 | 28,498,211 | Machinerie et outillage. |
| 9,853,785 | 13,157,071 | Matières en mains, produits en cours de fabrication, etc. |
| 6,818,624 | 15,352,429 | Caisse, comptes et billets à recevoir. |
| 67,001,700 | 95,281,040 | Total du capital. |
| Québec | | |
| 32,022,388 | 52,990,882 | Terrain, bâtiments et agencement. |
| 25,442,395 | 31,689,447 | Machinerie et outillage. |
| 18,601,732 | 26,580,475 | Matières en mains, produits en cours de fabrication, etc. |
| 9,421,279 | 12,840,360 | Caisse, comptes et billets à recevoir. |
| 85,487,794 | 124,101,164 | Total du capital. |
| Canada | | |
| 85,515,170 | 121,448,227 | Terrain, bâtiments et agencement. |
| 53,676,869 | 75,407,708 | Machinerie et outillage. |
| 32,002,967 | 46,572,806 | Matières en mains, produits en cours de fabrication, etc. |
| 18,122,494 | 32,338,623 | Caisse, comptes et billets à recevoir. |
| 189,317,500 | 275,767,364 | Total du capital. |

Tableau XIII. Agencement des fabriques de pâte de bois, par genres de fabriques et par provinces

| Ontario | Quebec | Canada | Nomenclature |
|----------------------------------|---------|-----------|--|
| Pulperies— | | | |
| 11 | 148 | 186 | Nombre de broyeuses. |
| 65 | 1,057 | 1,289 | Capacité par 24 heures. |
| 4,250 | 50,250 | 61,425 | Force en chevaux-vapeur employée pour les broyeuses. |
| 31,900 | 250,800 | 314,400 | Capacité annuelle des pulperies, tonnes (poids sec). |
| Pulperies et papeteries— | | | |
| 193 | 177 | 426 | Nombre de broyeuses. |
| 1,152 | 1,138 | 2,650 | Capacité par 24 heures. |
| 86,720 | 97,200 | 208,320 | Force en chevaux-vapeurs employée pour les broyeurs. |
| 395,620 | 372,300 | 879,520 | Capacité annuelle des pulperies, tonnes (poids sec). |
| Toutes fabriques de pâte. | | | |
| 204 | 325 | 612 | Nombre de broyeuses. |
| 1,217 | 2,195 | 3,939 | Capacité par 24 heures. |
| 90,970 | 147,450 | 269,745 | Force en chevaux-vapeur employée pour les broyeurs. |
| 427,520 | 623,100 | 1,193,920 | Capacité annuelle des pulperies, tonnes (poids sec). |

Table XIV.—Pulp mill machinery by Processes for the Provinces and Canada, 1919.

| Kind | British Columbia Colombie Britannique | | | New-Brunswick Nouveau-Brunswick | | | Ontario | | |
|-------------------------------|--|----------|--------------|------------------------------------|----------|--------------|--------------|----------|--------------|
| | For Sulphate | For Soda | For Sulphite | For Sulphate | For Soda | For Sulphite | For Sulphate | For Soda | For Sulphite |
| | Sulfate | Soude | Sulfite | Sulfate | Soude | Sulfite | Sulfate | Soude | Sulfite |
| Pulp Mills— | | | | | | | | | |
| Digesters— | | | | | | | | | |
| Number | - | - | 9 | 3 | - | 14 | - | - | 9 |
| Capacity, tons per cook | - | - | 41 | 55 | - | 155 | - | - | 52 |
| Number of cooks, per week | - | - | 87 | 54 | - | 155 | - | - | 93 |
| Yearly capacity of mill, tons | - | - | 58,200 | 15,000 | - | 75,000 | - | - | 53,060 |
| Pulp and paper mills— | | | | | | | | | |
| Digesters— | | | | | | | | | |
| Number | 4 | - | 5 | - | - | - | 4 | 3 | 21 |
| Capacity, tons per cook | 2 | - | 22 | - | - | - | 5 | 2 | 256 |
| Number of cooks, per week | 150 | - | 58 | - | - | - | 50 | 18 | 91 |
| Yearly capacity of mill, tons | 13,500 | - | 32,560 | - | - | - | 13,000 | 1,800 | 240,440 |
| All mills making pulp— | | | | | | | | | |
| Digesters— | | | | | | | | | |
| Number | 4 | - | 14 | 3 | - | 14 | 4 | 3 | 30 |
| Capacity, tons per cook | 2 | - | 63 | 55 | - | 155 | 5 | 2 | 308 |
| Number of cooks per week | 150 | - | 145 | 54 | - | 155 | 50 | 18 | 184 |
| Yearly capacity of mill, tons | 13,500 | - | 90,760 | 15,000 | - | 75,000 | 13,000 | 1,800 | 293,440 |

Table XV.—Paper Mill machinery, 1919.

| Paper Mill Machinery | British Columbia Colombie Britan- nique | Ontario |
|--------------------------------|---|---------|
| In paper mills— | | |
| Fourdrinier machines | - | 10 |
| Capacity, per 24 hours | - | 101 |
| Cylinder machines | - | 8 |
| Capacity, per 24 hours | - | 87 |
| Yearly capacity in paper, tons | - | 44,871 |
| In pulp and paper mills— | | |
| Fourdrinier machines | 8 | 31 |
| Capacity, per 24 hours | 460 | 1,265 |
| Cylinder machines | - | 10 |
| Capacity, per 24 hours | - | 293 |
| Yearly capacity in paper, tons | 138,000 | 468,722 |
| In all mills making paper— | | |
| Fourdrinier machines | 8 | 41 |
| Capacity, per 24 hours | 460 | 1,366 |
| Cylinder machines | - | 18 |
| Capacity, per 24 hours | - | 380 |
| Yearly capacity in paper, tons | 138,000 | 513,593 |

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Tableau XIV.—Machinerie des pulperies, selon les procédés, pour les provinces et pour le Canada 1919.

| Quebec | | | Canada | | | Enumération |
|----------------------|----------------|----------------------|----------------------|----------------|----------------------|--|
| For Sulphate Sulfate | For Soda Soude | For Sulphite Sulfite | For Sulphate Sulfate | For Soda Soude | For Sulphite Sulfite | |
| 8 | - | 12 | 11 | - | 44 | Pulperies— Digesteurs— Nombre. |
| 36 | - | 31 | 91 | - | 279 | Capacité, tonnes par cuisson. |
| 191 | - | 80 | 245 | - | 415 | Nombre de cuissons par semaine. |
| 58,000 | - | 75,000 | 73,000 | - | 261,200 | Capacité annuelle des pulperies, tonnes. |
| 17 | 4 | 24 | 25 | 7 | 50 | Pulperies et papeteries— Digesteurs— Nombre. |
| 70 | 12 | 176 | 77 | 14 | 454 | Capacité, tonnes par cuisson. |
| 109 | 6 | 109 | 309 | 24 | 258 | Nombre de cuissons par semaine. |
| 103,300 | 3,800 | 147,500 | 129,800 | 5,600 | 420,500 | Capacité annuelle des pulperies, tonnes. |
| 25 | 4 | 36 | 36 | 7 | 94 | Toutes fabriques de pulpe— Digesteurs— Nombre. |
| 106 | 12 | 207 | 168 | 14 | 733 | Capacité, tonnes par cuisson. |
| 300 | 6 | 189 | 554 | 24 | 673 | Nombre de cuissons par semaine. |
| 161,300 | 3,800 | 222,500 | 202,800 | 5,600 | 681,700 | Capacité annuelle des pulperies, tonnes. |

Tableau XV.—Machinerie des papeteries, 1919.

| Québec | Canada | Machinerie à fabriquer le papier |
|---------|-----------|--|
| 12 | 22 | Dans les papeteries— |
| 96 | 197 | Machines Fourdrinier. |
| 11 | 19 | Capacité, par 24 heures. |
| 84 | 171 | Machines à cylindres. |
| 54,663 | 99,534 | Capacité, par 24 heures. |
| | | Capacité annuelle en tonnes de papier. |
| 37 | 76 | Dans les pulperies et papeteries— |
| 1,260 | 2,985 | Machines Fourdrinier. |
| 5 | 15 | Capacité, par 24 heures. |
| 148 | 441 | Machines à cylindres. |
| 456,121 | 1,062,843 | Capacité, par 24 heures. |
| | | Capacité annuelle en tonnes de papier. |
| 49 | 98 | Dans toutes fabriques de papier— |
| 1,356 | 3,182 | Machines Fourdrinier. |
| 16 | 34 | Capacité, par 24 heures. |
| 232 | 612 | Machines à cylindres. |
| 510,784 | 1,162,377 | Capacité, par 24 heures. |
| | | Capacité annuelle en tonnes de papier. |

Table XVI.—Power employed by Classes of Mills and Provinces, 1919.

| Class | Pulp Mills | | | Pulp and Paper Mills | | |
|---|------------------------------------|--|--|------------------------------------|--|---|
| | Pulperies | | | Pulperies et papeteries | | |
| | Number of units Nombre d'unités | Total H.P. according to manufacturer's rating Total en chev.-vap. selon l'indication du fabricant | Total H.P. actually employed Nombre en chev.-vap. réellement employés | Number of units Nombre d'unités | Total H.P. according to manufacturer's rating Total en chev.-vap. selon l'indication du fabricant | Total H.P. actually employed Total en chev.-vap. réellement employés |
| British Columbia | 193 | 17,775 | 15,360 | 532 | 78,939 | 59,953 |
| Boilers . | - | - | - | - | - | - |
| Fired by hand . | - | - | - | - | - | - |
| Fired mechanically..... | 20 | 6,285 | 6,285 | 38 | 8,516 | 8,513 |
| Engines | - | - | - | - | - | - |
| Steam..... | 7 | 2,885 | 2,885 | 3 | 2,400 | 1,600 |
| Steam turbines . . | 7 | 1,100 | 500 | - | - | - |
| Gas..... | - | - | - | - | - | - |
| Oil..... | - | - | - | - | - | - |
| Hydraulic turbines or water wheels..... | 7 | 2,900 | 2,900 | 19 | 45,000 | 36,300 |
| Electric motors..... | - | - | - | - | - | - |
| Alternating current..... | 140 | 4,515 | 2,600 | 416 | 21,943 | 12,840 |
| Direct current..... | - | - | - | 22 | 1,080 | 700 |
| Other power | 4 | 90 | 90 | - | - | - |
| Generators or dynamos..... | - | - | - | - | - | - |
| Alternating current..... | 5 | - | - | 9 | - | - |
| Direct current | 2 | - | - | 14 | - | - |
| Air compressors..... | 1 | - | - | 11 | - | - |
| New Brunswick..... | 279 | 33,424 | 29,531 | - | - | - |
| Boilers. | - | - | - | - | - | - |
| Fired by hand..... | 29 | 4,775 | 4,775 | - | - | - |
| Fired mechanically..... | 15 | 8,104 | 8,104 | - | - | - |
| Engines. | - | - | - | - | - | - |
| Steam. | 38 | 7,506 | 5,348 | - | - | - |
| Steam turbines.. | 2 | 2,500 | 2,500 | - | - | - |
| Gas.. | 5 | 156 | 156 | - | - | - |
| Oil..... | - | - | - | - | - | - |
| Hydraulic turbines or water wheels..... | 6 | 5,300 | 5,300 | - | - | - |
| Electric motors..... | - | - | - | - | - | - |
| Alternating current..... | 170 | 4,812 | 3,080 | - | - | - |
| Direct current..... | 9 | 271 | 268 | - | - | - |
| Other power..... | - | - | - | - | - | - |
| Generators or dynamos..... | - | - | - | - | - | - |
| Alternating current..... | 2 | - | - | - | - | - |
| Direct current..... | 3 | - | - | - | - | - |
| Air compressors..... | - | - | - | - | - | - |
| Nova Scotia | 28 | 11,700 | 10,900 | - | - | - |
| Boilers... | - | - | - | - | - | - |
| Fired by hand..... | 2 | 1,500 | 1,500 | - | - | - |
| Fired mechanically..... | - | - | - | - | - | - |
| Engines..... | - | - | - | - | - | - |
| Steam..... | - | - | - | - | - | - |
| Steam turbines..... | - | - | - | - | - | - |
| Gas..... | - | - | - | - | - | - |
| Oil..... | - | - | - | - | - | - |
| Hydraulic turbines or water wheels..... | 24 | 10,200 | 9,400 | - | - | - |
| Electric motors..... | - | - | - | - | - | - |
| Alternating current..... | - | - | - | - | - | - |
| Direct current..... | - | - | - | - | - | - |
| Other power..... | - | - | - | - | - | - |
| Generators or dynamos..... | - | - | - | - | - | - |
| Alternating current..... | 2 | - | - | - | - | - |
| Direct current..... | - | - | - | - | - | - |
| Air compressors..... | - | - | - | - | - | - |

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Tableau XVI.—Force motrice employée, par genres de fabriques et par provinces, 1919.

| Paper Mills Papeteries | | | All Mills Toutes fabriques | | | Genre |
|---------------------------|---|--|-------------------------------|---|--|-----------------------------|
| Number of units | Total H.P. according to manu- facturer's rating | Total H.P. actually employed | Number of units | Total H.P. according to manu- facturer's rating | Total H.P. actually employed | |
| Nombre d'unités | Total en chev.- vap. selon l'indica- tion du fabricant | Total en chev.- vap. réel- lement employés | Nombre d'unités | Total en chev.- vap. selon l'indica- tion du fabricant | Total en chev.- vap. réel- lement employés | |
| - | - | - | 735 | 96,714 | 75,213 | Colombie Britannique |
| - | - | - | - | - | - | Chaudières à vapeur. |
| - | - | - | - | - | - | Chaudières à la main. |
| - | - | - | 58 | 14,801 | 14,798 | Chaudières mécaniquement. |
| - | - | - | - | - | - | Machines motrices. |
| - | - | - | 10 | 5,285 | 4,485 | A vapeur. |
| - | - | - | 7 | 1,100 | 500 | Turbines à vapeur. |
| - | - | - | - | - | - | A gaz. |
| - | - | - | - | - | - | A pétrole. |
| - | - | - | 26 | 47,900 | 39,200 | Turbines hydrauliques. |
| - | - | - | - | - | - | Moteurs électriques. |
| - | - | - | 556 | 26,458 | 15,440 | Courant alternatif. |
| - | - | - | 22 | 1,080 | 700 | Courant direct. |
| - | - | - | 4 | 90 | 90 | Autre force motrice. |
| - | - | - | - | - | - | Générateur ou dynamos. |
| - | - | - | 14 | - | - | Courant alternatif. |
| - | - | - | 16 | - | - | Courant direct. |
| - | - | - | 12 | - | - | Compresseurs à air. |
| - | - | - | 279 | 33,424 | 29,531 | Nouveau-Brunswick |
| - | - | - | - | - | - | Chaudières à vapeur. |
| - | - | - | 29 | 4,775 | 4,775 | Chaudières à la main. |
| - | - | - | 15 | 8,104 | 8,104 | Chaudières mécaniquement. |
| - | - | - | - | - | - | Machines motrices. |
| - | - | - | 38 | 7,506 | 5,348 | A vapeur. |
| - | - | - | 2 | 2,500 | 2,500 | Turbines à vapeur. |
| - | - | - | 5 | 156 | 156 | A gaz. |
| - | - | - | - | - | - | A pétrole. |
| - | - | - | 6 | 5,300 | 5,300 | Turbines hydrauliques. |
| - | - | - | - | - | - | Moteurs électriques. |
| - | - | - | 170 | 4,812 | 3,080 | Courant alternatif. |
| - | - | - | 9 | 271 | 268 | Courant direct. |
| - | - | - | - | - | - | Autre force motrice. |
| - | - | - | - | - | - | Générateurs ou dynamos. |
| - | - | - | 2 | - | - | Courant alternatif. |
| - | - | - | 3 | - | - | Courant direct. |
| - | - | - | - | - | - | Compresseurs à air. |
| - | - | - | 28 | 11,700 | 10,900 | Nouvelle-Ecosse |
| - | - | - | - | - | - | Chaudières à vapeur. |
| - | - | - | 2 | 1,500 | 1,500 | Chaudières à la main. |
| - | - | - | - | - | - | Chaudières mécaniquement. |
| - | - | - | - | - | - | Machines motrices. |
| - | - | - | - | - | - | A vapeur. |
| - | - | - | - | - | - | Turbines à vapeur. |
| - | - | - | - | - | - | A gaz. |
| - | - | - | - | - | - | A pétrole. |
| - | - | - | 24 | 10,200 | 9,400 | Turbines hydrauliques. |
| - | - | - | - | - | - | Moteurs électriques. |
| - | - | - | - | - | - | Courant alternatif. |
| - | - | - | - | - | - | Courant direct. |
| - | - | - | - | - | - | Autre force motrice. |
| - | - | - | - | - | - | Générateurs ou dynamos. |
| - | - | - | 2 | - | - | Courant alternatif. |
| - | - | - | - | - | - | Courant direct. |
| - | - | - | - | - | - | Compresseurs à air. |

Table XVI.—Power employed by Classes of Mills and Provinces—concluded.

| Class | Pulp Mills | | | Pulp and Paper Mills | | |
|---|--|---|--|--|---|---|
| | Pulperies | | | Pulperies et papeteries | | |
| | Number of units Nombre d'unités | Total H.P. according to manu- facturer's rating Total en chev.- vap. selon l'indica- tion du fabricant | Total H.P. actually employed Nombre en chev.- vap. réel- lement employés | Number of units Nombre d'unités | Total H.P. according to manu- facturer's rating Total en chev.- vap. selon l'indica- tion du fabricant | Total H.P. actually employed Total en chev.- vap. réel- lement employés |
| Ontario... | 437 | 37,797 | 29,300 | 762 | 116,503 | 105,250 |
| Boilers... | - | - | - | - | - | - |
| Fired by hand..... | 9 | 1,350 | 1,350 | 10 | 2,665 | 2,665 |
| Fired mechanically..... | 21 | 8,901 | 8,530 | - | - | - |
| Engines..... | - | - | - | - | - | - |
| Steam..... | 2 | 35 | 35 | 77 | 11,600 | 10,419 |
| Steam turbines..... | - | - | - | - | - | - |
| Gas..... | - | - | - | - | - | - |
| Oil..... | - | - | - | - | - | - |
| Hydraulic turbines or water wheels..... | 15 | 13,300 | 6,150 | 70 | 55,130 | 52,500 |
| Electric motors..... | - | - | - | - | - | - |
| Alternating current..... | 372 | 13,711 | 11,735 | 533 | 45,613 | 38,710 |
| Direct current..... | 11 | 500 | 500 | 60 | 1,495 | 965 |
| Other power..... | - | - | - | - | - | - |
| Generators or dynamos..... | - | - | - | - | - | - |
| Alternating current..... | 4 | - | - | 10 | - | - |
| Direct current..... | 1 | - | - | 2 | - | - |
| Air compressors..... | 2 | - | - | - | - | - |
| Quebec | 228 | 89,059 | 85,144 | 1,634 | 203,879 | 149,128 |
| Boilers..... | - | - | - | - | - | - |
| Fired by hand..... | 22 | 3,430 | 2,505 | 35 | 5,325 | 4,075 |
| Fired mechanically..... | 14 | 5,040 | 4,200 | 55 | 20,933 | 17,468 |
| Engines..... | - | - | - | - | - | - |
| Steam..... | 12 | 930 | 875 | 73 | 10,145 | 8,060 |
| Steam turbines..... | 3 | 3,100 | 2,100 | 7 | 1,575 | 950 |
| Gas..... | - | - | - | 2 | 50 | 50 |
| Oil..... | - | - | - | - | - | - |
| Hydraulic turbines or water wheels..... | 63 | 72,269 | 71,479 | 95 | 74,842 | 51,160 |
| Electric motors..... | - | - | - | - | - | - |
| Alternating current..... | 103 | 4,285 | 3,980 | 1,275 | 88,229 | 64,818 |
| Direct current..... | 1 | 5 | 5 | 10 | 2,780 | 2,547 |
| Other power..... | - | - | - | - | - | - |
| Generators or dynamos..... | - | - | - | - | - | - |
| Alternating current..... | 9 | - | - | 69 | - | - |
| Direct current..... | - | - | - | 5 | - | - |
| Air compressors..... | 1 | - | - | 8 | - | - |
| Canada | 1,165 | 189,755 | 169,135 | 2,928 | 399,321 | 314,331 |
| Boilers..... | - | - | - | - | - | - |
| Fired by hand..... | 62 | 11,055 | 10,130 | 45 | 7,990 | 6,740 |
| Fired mechanically..... | 70 | 28,330 | 27,119 | 93 | 29,449 | 25,981 |
| Engines..... | - | - | - | - | - | - |
| Steam..... | 59 | 11,356 | 9,143 | 153 | 24,145 | 20,070 |
| Steam turbines..... | 12 | 6,700 | 5,100 | 7 | 1,575 | 950 |
| Gas..... | 5 | 156 | 156 | 2 | 50 | 50 |
| Oil..... | - | - | - | - | - | - |
| Hydraulic turbines or water wheels... | 115 | 103,969 | 95,229 | 184 | 174,972 | 139,960 |
| Electric motors..... | - | - | - | - | - | - |
| Alternating current..... | 785 | 27,323 | 21,395 | 2,224 | 155,785 | 116,368 |
| Direct current..... | 21 | 776 | 773 | 92 | 5,355 | 4,212 |
| Other power..... | 4 | 90 | 90 | - | - | - |
| Generators or dynamos..... | - | - | - | - | - | - |
| Alternating current..... | 22 | - | - | 88 | - | - |
| Direct current..... | 6 | - | - | 21 | - | - |
| Air compressors..... | 4 | - | - | 19 | - | - |

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Tableau XVI.—Force motrice employée, par genres de fabriques et par provinces—*fin*.

| Paper Mills Papeteries | | | All Mills Toutes fabriques | | | Genre |
|---------------------------|---|---|-------------------------------|---|---|--------------------------|
| Number of units | Total H.P. according to manufacturer's rating | Total H.P. actually employed | Number of units | Total H.P. according to manufacturer's rating | Total H.P. actually employed | |
| Nombre d'unités | Total en chev.-vap. selon l'indication du fabricant | Total en chev.-vap. réellement employés | Nombre d'unités | Total en chev.-vap. selon l'indication du fabricant | Total en chev.-vap. réellement employés | |
| 241 | 14,446 | 12,832 | 1,440 | 168,746 | 146,382 | Ontario |
| - | - | - | - | - | - | Chaudières à vapeur. |
| 21 | 2,500 | 2,345 | 40 | 6,515 | 6,360 | Chauffées à la main. |
| 15 | 2,175 | 2,155 | 36 | 11,076 | 10,685 | Chauffées mécaniquement. |
| - | - | - | - | - | - | Machines motrices. |
| 15 | 1,875 | 1,640 | 94 | 13,510 | 12,085 | A vapeur. |
| - | - | - | - | - | - | Turbines à vapeur. |
| - | - | - | - | - | - | A gaz. |
| - | - | - | - | - | - | A pétrole. |
| 18 | 3,645 | 3,065 | 103 | 72,075 | 61,715 | Turbines hydrauliques. |
| - | - | - | - | - | - | Moteurs électriques. |
| 157 | 4,171 | 3,553 | 1,062 | 63,495 | 53,998 | Courant alternatif. |
| 11 | 57 | 57 | 82 | 2,052 | 1,522 | Courant direct. |
| 2 | 23 | 17 | 2 | 23 | 17 | Autre force motrice. |
| - | - | - | - | - | - | Générateurs ou dynamos. |
| 1 | - | - | 15 | - | - | Courant alternatif. |
| 1 | - | - | 4 | - | - | Courant direct. |
| - | - | - | 2 | - | - | Compresseurs à air. |
| 250 | 20,066 | 16,588 | 2,112 | 313,004 | 250,860 | Québec |
| - | - | - | - | - | - | Chaudières à vapeur. |
| 30 | 4,115 | 3,350 | 87 | 12,870 | 9,930 | Chauffées à la main. |
| 5 | 650 | 650 | 74 | 26,623 | 22,318 | Chauffées mécaniquement. |
| - | - | - | - | - | - | Machines motrices. |
| 15 | 1,935 | 1,230 | 100 | 13,010 | 10,165 | A vapeur. |
| - | - | - | 10 | 4,675 | 3,050 | Turbines à vapeur. |
| - | - | - | 2 | 50 | 50 | A gaz. |
| - | - | - | - | - | - | A pétrole. |
| 39 | 7,578 | 6,768 | 197 | 154,680 | 129,407 | Turbines hydrauliques. |
| - | - | - | - | - | - | Moteurs électriques. |
| 135 | 5,068 | 3,920 | 1,513 | 97,582 | 72,718 | Courant alternatif. |
| 8 | 395 | 370 | 19 | 3,180 | 2,922 | Courant direct. |
| 2 | 325 | 300 | 2 | 325 | 300 | Autre force motrice. |
| - | - | - | - | - | - | Générateurs ou dynamos. |
| 12 | - | - | 90 | - | - | Courant alternatif. |
| 4 | - | - | 9 | - | - | Courant direct. |
| - | - | - | 9 | - | - | Compresseurs à air. |
| 491 | 34,512 | 29,420 | 4,584 | 623,588 | 512,886 | Canada |
| - | - | - | - | - | - | Chaudières à vapeur. |
| 51 | 6,615 | 5,695 | 158 | 25,660 | 22,565 | Chauffées à la main. |
| 20 | 2,825 | 2,805 | 183 | 60,604 | 55,905 | Chauffées mécaniquement. |
| - | - | - | - | - | - | Machines motrices. |
| 30 | 3,810 | 2,870 | 242 | 39,311 | 32,083 | A vapeur. |
| - | - | - | 19 | 8,275 | 6,050 | Turbines à vapeur. |
| - | - | - | 7 | 206 | 206 | A gaz. |
| - | - | - | - | - | - | A pétrole. |
| 57 | 11,223 | 9,833 | 356 | 290,164 | 245,022 | Turbines hydrauliques. |
| - | - | - | - | - | - | Moteurs électriques. |
| 292 | 9,239 | 7,473 | 3,301 | 192,347 | 145,236 | Courant alternatif. |
| 19 | 452 | 427 | 132 | 6,583 | 5,412 | Courant direct. |
| 4 | 348 | 317 | 8 | 438 | 407 | Autre force motrice. |
| - | - | - | - | - | - | Générateurs ou dynamos. |
| 13 | - | - | 123 | - | - | Courant alternatif. |
| 5 | - | - | 32 | - | - | Courant direct. |
| - | - | - | 23 | - | - | Compresseurs à air. |

Table XVII. Employees, Salaries and Wages by Classes of Mills for the Provinces, 1919.

| Provinces | Pulp Mills | | | Pulp and Paper Mills | | |
|---|-----------------|-------------------|------------------|-------------------------|-------------------|-------------------|
| | Pulperies | | | Pulperies et papeteries | | |
| | Males Hommes | Females Femmes | \$ | Males Hommes | Females Femmes | \$ |
| British Columbia | | | | | | |
| Officers, superintendents and managers..... | 23 | - | 76,021 | 31 | - | 148,578 |
| Clerks, stenographers and other salaried employees..... | 97 | 9 | 188,678 | 104 | 31 | 181,988 |
| Employees on wages..... | 991 | 4 | 1,248,843 | 1,377 | 20 | 2,280,346 |
| Total salaries and wages | 1,111 | 13 | 1,513,542 | 1,512 | 51 | 2,604,112 |
| New Brunswick | | | | | | |
| Officers, superintendents and managers..... | 32 | - | 119,343 | - | - | - |
| Clerks, stenographers and other salaried employees..... | 37 | 14 | 59,232 | - | - | - |
| Employees on wages..... | 1,157 | 1 | 1,027,461 | - | - | - |
| Total salaries and wages | 1,226 | 15 | 1,206,036 | - | - | - |
| Nova Scotia | | | | | | |
| Officers, superintendents and managers..... | 9 | - | 14,051 | - | - | - |
| Clerks, stenographers and other salaried employees..... | 2 | 6 | 4,806 | - | - | - |
| Employees on wages..... | 226 | - | 116,934 | - | - | - |
| Total salaries and wages | 237 | 6 | 135,791 | - | - | - |
| Ontario | | | | | | |
| Officers, superintendents and managers..... | 54 | 7 | 171,701 | 86 | 2 | 409,040 |
| Clerks, stenographers and other salaried employees..... | 48 | 9 | 89,060 | 329 | 92 | 595,277 |
| Employees on wages..... | 1,461 | 2 | 2,004,445 | 5,033 | 114 | 7,269,820 |
| Total salaries and wages..... | 1,563 | 18 | 2,265,206 | 5,448 | 208 | 8,274,137 |
| Quebec | | | | | | |
| Officers, superintendents and managers..... | 49 | - | 190,552 | 166 | 1 | 613,717 |
| Clerks, stenographers and other salaried employees..... | 128 | 23 | 201,399 | 600 | 114 | 1,072,372 |
| Employees on wages..... | 3,421 | 19 | 3,420,204 | 7,609 | 181 | 8,078,729 |
| Total salaries and wages... | 3,598 | 42 | 3,812,155 | 8,375 | 296 | 9,764,818 |
| Canada | | | | | | |
| Officers, superintendents and managers..... | 167 | 7 | 571,670 | 283 | 3 | 1,161,335 |
| Clerks, stenographers and other salaried employees..... | 312 | 61 | 543,175 | 1,033 | 237 | 1,852,637 |
| Employees on wages..... | 7,256 | 26 | 7,817,887 | 14,019 | 315 | 17,629,095 |
| Total salaries and wages | 7,735 | 94 | 8,932,732 | 15,335 | 555 | 20,643,067 |

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Tableau XVII.—Personnel d'employés et d'ouvriers, appcintements et salaires, par genres de fabriques, pour les provinces, 1919.

| Paper Mills Papeteries | | | All Mills Toutes fabriques | | | Provinces |
|---------------------------|-------------------|-----------|-------------------------------|-------------------|------------|--|
| Males Hommes | Females Femmes | \$ | Males Hommes | Females Femmes | \$ | |
| | | | | | | Colombie Britannique |
| - | - | - | 53 | - | 214,599 | Administrateurs, directeurs et gérants. |
| - | - | - | 211 | 40 | 373,666 | Commis, sténographes et autres employés. |
| - | - | - | 2,368 | 24 | 3,529,389 | Ouvriers et journaliers. |
| - | - | - | 2,823 | 64 | 4,117,654 | Total des traitements, appointements et salaires. |
| | | | | | | Nouveau-Brunswick |
| - | - | - | 32 | - | 119,345 | Administrateurs, directeurs et gérants. |
| - | - | - | 37 | 14 | 59,232 | Commis, sténographes et autres employés. |
| - | - | - | 1,157 | 1 | 1,027,461 | Ouvriers et journaliers. |
| - | - | - | 1,226 | 15 | 1,206,038 | Total des traitements, appointements et salaires. |
| | | | | | | Nouvelle-Ecosse |
| - | - | - | 9 | - | 14,051 | Administrateurs, directeurs et gérants. |
| - | - | - | 2 | 6 | 4,806 | Commis, sténographes et autres employés. |
| - | - | - | 226 | - | 116,934 | Ouvriers et journaliers. |
| - | - | - | 237 | 6 | 135,791 | Total des traitements, appointements et salaires. |
| | | | | | | Ontario |
| 37 | - | 138,300 | 177 | 9 | 719,041 | Administrateurs, directeurs et gérants. |
| 26 | 23 | 60,843 | 403 | 124 | 745,180 | Commis, sténographes et autres employés. |
| 913 | 235 | 993,827 | 7,407 | 351 | 10,268,092 | Ouvriers et journaliers. |
| 976 | 258 | 1,192,970 | 7,987 | 484 | 11,732,313 | Total des traitements, appointements et salaires. |
| | | | | | | Québec. |
| 55 | 8 | 183,269 | 370 | 9 | 987,538 | Administrateurs, directeurs et gérants. |
| 114 | 39 | 179,441 | 842 | 176 | 1,453,212 | Commis, sténographes et autres employés. |
| 1,158 | 320 | 1,132,729 | 12,188 | 520 | 12,631,662 | Ouvriers et journaliers. |
| 1,327 | 367 | 1,495,439 | 13,300 | 705 | 15,072,412 | Total des traitements, appointements et salaires. |
| | | | | | | Canada |
| 92 | 8 | 321,569 | 542 | 18 | 2,054,574 | Administrateurs, directeurs et gérants. |
| 140 | 62 | 240,284 | 1,485 | 360 | 2,636,096 | Commis, sténographes et autres employés. |
| 2,071 | 555 | 2,126,556 | 23,346 | 896 | 27,573,538 | Ouvriers et journaliers. |
| 2,303 | 625 | 2,688,409 | 25,373 | 1,274 | 32,264,208 | Total des traitements, appointements et salaires. |

Table XVIII.—Employees by Months for Classes of Mills by Provinces, 1919.

| Classes of Mills by Provinces | January | | | | February | | | | March | | | | April | | | | May | | | | June | | | |
|-------------------------------|---------|--------|--------|--------|----------|--------|--------|--------|-------|--------|--------|--------|-------|--------|--------|--------|------|--------|--------|--------|------|--------|--------|--------|
| | Janvier | | | | Février | | | | Mars | | | | Avril | | | | Mai | | | | Juin | | | |
| | Male | Hommes | Female | Femmes | Male | Hommes | Female | Femmes | Male | Hommes | Female | Femmes | Male | Hommes | Female | Femmes | Male | Hommes | Female | Femmes | Male | Hommes | Female | Femmes |
| British Columbia | | | | | | | | | | | | | | | | | | | | | | | | |
| Pulp mills..... | 992 | | 1 | 932 | 1 | 915 | 1 | 905 | 1 | 849 | 1 | 809 | 1 | 849 | 1 | 809 | 1 | 849 | 1 | 809 | 1 | 849 | 1 | 809 |
| Pulp and paper mills..... | 1,390 | | 19 | 1,224 | 18 | 1,204 | 18 | 1,337 | 18 | 1,313 | 20 | 1,356 | 21 | 1,313 | 20 | 1,356 | 21 | 1,313 | 20 | 1,356 | 21 | 1,313 | 20 | 1,356 |
| Paper mills..... | | | | | | | | | | | | | | | | | | | | | | | | |
| All mills..... | 2,382 | | 20 | 2,156 | 19 | 2,119 | 19 | 2,242 | 19 | 2,162 | 21 | 2,165 | 22 | 2,162 | 21 | 2,165 | 22 | 2,162 | 21 | 2,165 | 22 | 2,162 | 21 | 2,165 |
| New Brunswick | | | | | | | | | | | | | | | | | | | | | | | | |
| Pulp mills..... | 1,179 | | 1 | 1,118 | 1 | 1,041 | 1 | 1,142 | 1 | 1,082 | 1 | 1,104 | 1 | 1,082 | 1 | 1,104 | 1 | 1,082 | 1 | 1,104 | 1 | 1,082 | 1 | 1,104 |
| Pulp and paper mills..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Paper mills..... | | | | | | | | | | | | | | | | | | | | | | | | |
| All mills..... | 1,179 | | 1 | 1,188 | 1 | 1,041 | 1 | 1,142 | 1 | 1,082 | 1 | 1,104 | 1 | 1,082 | 1 | 1,104 | 1 | 1,082 | 1 | 1,104 | 1 | 1,082 | 1 | 1,104 |
| Nova Scotia | | | | | | | | | | | | | | | | | | | | | | | | |
| Pulp mills..... | 253 | | | 280 | | 262 | | 281 | | 248 | | 259 | | 248 | | 259 | | 248 | | 259 | | 248 | | 259 |
| Pulp and paper mills..... | | | | | | | | | | | | | | | | | | | | | | | | |
| Paper mills..... | | | | | | | | | | | | | | | | | | | | | | | | |
| All mills..... | 253 | | | 280 | | 262 | | 281 | | 248 | | 259 | | 248 | | 259 | | 248 | | 259 | | 248 | | 259 |
| Ontario— | | | | | | | | | | | | | | | | | | | | | | | | |
| Pulp mills..... | 1,502 | | 1 | 1,576 | 1 | 1,508 | 1 | 1,298 | 1 | 1,458 | 1 | 1,469 | 1 | 1,458 | 1 | 1,469 | 1 | 1,458 | 1 | 1,469 | 1 | 1,458 | 1 | 1,469 |
| Pulp and paper mills..... | 4,650 | | 107 | 4,788 | 101 | 4,727 | 108 | 4,604 | 84 | 4,701 | 116 | 4,628 | 121 | 4,701 | 116 | 4,628 | 121 | 4,701 | 116 | 4,628 | 121 | 4,701 | 116 | 4,628 |
| Paper mills..... | 933 | | 251 | 892 | 241 | 907 | 237 | 882 | 212 | 860 | 240 | 883 | 203 | 860 | 240 | 883 | 203 | 860 | 240 | 883 | 203 | 860 | 240 | 883 |
| All mills..... | 7,085 | | 359 | 7,256 | 343 | 7,142 | 346 | 6,784 | 297 | 7,019 | 357 | 6,980 | 325 | 7,019 | 357 | 6,980 | 325 | 7,019 | 357 | 6,980 | 325 | 7,019 | 357 | 6,980 |
| Quebec — | | | | | | | | | | | | | | | | | | | | | | | | |
| Pulp mills..... | 3,048 | | 13 | 3,036 | 14 | 3,013 | 14 | 3,232 | 16 | 3,732 | 27 | 3,689 | 22 | 3,732 | 27 | 3,689 | 22 | 3,732 | 27 | 3,689 | 22 | 3,732 | 27 | 3,689 |
| Pulp and paper mills..... | 7,144 | | 187 | 7,108 | 182 | 6,963 | 184 | 7,225 | 180 | 7,625 | 170 | 7,997 | 178 | 7,625 | 170 | 7,997 | 178 | 7,625 | 170 | 7,997 | 178 | 7,625 | 170 | 7,997 |
| Paper mills..... | 1,193 | | 318 | 1,210 | 318 | 1,159 | 308 | 1,103 | 312 | 1,092 | 306 | 1,161 | 317 | 1,092 | 306 | 1,161 | 317 | 1,092 | 306 | 1,161 | 317 | 1,092 | 306 | 1,161 |
| All mills..... | 11,385 | | 518 | 11,354 | 514 | 11,135 | 506 | 11,560 | 508 | 12,449 | 503 | 12,847 | 517 | 12,449 | 503 | 12,847 | 517 | 12,449 | 503 | 12,847 | 517 | 12,449 | 503 | 12,847 |
| Canada— | | | | | | | | | | | | | | | | | | | | | | | | |
| Pulp mills..... | 6,974 | | 16 | 7,012 | 17 | 6,739 | 17 | 6,858 | 19 | 7,369 | 30 | 7,330 | 25 | 7,369 | 30 | 7,330 | 25 | 7,369 | 30 | 7,330 | 25 | 7,369 | 30 | 7,330 |
| Pulp and paper mills..... | 13,184 | | 313 | 13,120 | 301 | 12,894 | 310 | 13,166 | 282 | 13,639 | 306 | 13,981 | 320 | 13,639 | 306 | 13,981 | 320 | 13,639 | 306 | 13,981 | 320 | 13,639 | 306 | 13,981 |
| Paper mills..... | 2,126 | | 569 | 2,102 | 559 | 2,066 | 545 | 1,985 | 524 | 1,952 | 546 | 2,044 | 520 | 1,952 | 546 | 2,044 | 520 | 1,952 | 546 | 2,044 | 520 | 1,952 | 546 | 2,044 |
| All mills..... | 22,284 | | 898 | 22,234 | 877 | 21,699 | 872 | 22,009 | 825 | 22,960 | 882 | 23,355 | 865 | 22,960 | 882 | 23,355 | 865 | 22,960 | 882 | 23,355 | 865 | 22,960 | 882 | 23,355 |

Tableau XVIII.—Employés par mois, par genres de fabriques et par provinces, 1919.

| July — Juillet | | August — Août | | September — Septembre | | October — Octobre | | November — Novembre | | December — Décembre | | Genres de fabriques par provinces |
|----------------------|-----------------------|---------------------|-----------------------|-----------------------------|-----------------------|-------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|--|
| Male — Hommes | Female — Femmes | Male — Hommes | Female — Femmes | Male — Hommes | Female — Femmes | Male — Hommes | Female — Femmes | Male — Hommes | Female — Femmes | Male — Hommes | Female — Hommes | |
| 756 | 1 | 805 | 5 | 1,051 | 5 | 1,243 | 5 | 1,270 | 8 | 1,360 | 13 | Colombie Britannique— Pulperies. Pulperies et papeteries. Papeteries. Toutes fabriques. |
| 1,439 | 22 | 1,459 | 21 | 1,412 | 20 | 1,454 | 20 | 1,449 | 20 | 1,482 | 20 | |
| 2,195 | 23 | 2,264 | 26 | 2,463 | 25 | 2,697 | 25 | 2,719 | 28 | 2,842 | 33 | |
| 1,275 | 1 | 1,234 | 1 | 1,195 | 1 | 1,181 | 1 | 1,204 | 1 | 1,054 | 1 | Nouveau-Brunswick— Pulperies. Pulperies et papeteries. Papeteries. Toutes fabriques. |
| 1,275 | 1 | 1,234 | 1 | 1,195 | 1 | 1,181 | 1 | 1,204 | 1 | 1,054 | 1 | |
| 164 | | 175 | | 168 | | 174 | | 235 | | 218 | | |
| 164 | | 175 | | 168 | | 174 | | 235 | | 218 | | Nouvelle-Ecosse— Pulperies. Pulperies et papeteries. Papeteries. Toutes fabriques. |
| 1,492 | 2 | 1,487 | 2 | 1,445 | 2 | 1,492 | 4 | 1,402 | 4 | 1,416 | 4 | |
| 4,867 | 120 | 4,991 | 122 | 5,389 | 116 | 5,558 | 120 | 5,646 | 121 | 5,847 | 126 | |
| 880 | 221 | 917 | 237 | 918 | 235 | 963 | 243 | 959 | 248 | 961 | 244 | Ontario— Pulperies. Pulperies et papeteries. Papeteries. Toutes fabriques. |
| 7,239 | 343 | 7,395 | 361 | 7,752 | 353 | 8,003 | 367 | 8,007 | 373 | 8,224 | 374 | |
| 3,789 | 22 | 3,562 | 21 | 3,399 | 19 | 3,587 | 20 | 3,556 | 21 | 3,414 | 17 | |
| 8,220 | 177 | 8,059 | 179 | 8,012 | 183 | 7,784 | 182 | 7,661 | 184 | 7,519 | 187 | Québec— Pulperies. Pulperies et papeteries. Papeteries. Toutes fabriques. |
| 1,149 | 315 | 1,150 | 324 | 1,138 | 324 | 1,151 | 339 | 1,205 | 330 | 1,184 | 331 | |
| 13,158 | 514 | 12,771 | 524 | 12,549 | 526 | 12,522 | 541 | 12,422 | 535 | 12,117 | 535 | |
| 7,476 | 26 | 7,263 | 29 | 7,258 | 27 | 7,667 | 30 | 7,667 | 34 | 7,462 | 35 | Canada— Pulperies. Pulperies et papeteries. Papeteries. Toutes fabriques. |
| 14,526 | 319 | 14,509 | 322 | 14,813 | 319 | 14,796 | 322 | 14,756 | 325 | 14,848 | 333 | |
| 2,029 | 536 | 2,067 | 561 | 2,056 | 559 | 2,114 | 582 | 2,164 | 578 | 2,145 | 575 | |
| 24,031 | 881 | 23,839 | 912 | 24,127 | 905 | 24,577 | 934 | 24,587 | 937 | 24,455 | 943 | |

Table XIX.—Classified Weekly wages by Provinces and Classes of Mills, 1919.

| Provinces | Pulp Mills | | | | Pulp and Paper Mills | | | |
|----------------------|--------------------------|------------------|-----------------------|------------------|--------------------------|------------------|-----------------------|------------------|
| | Pulperies | | | | Pulperies et papeteries | | | |
| | 16 years of age and over | | Under 16 years of age | | 16 years of age and over | | Under 16 years of age | |
| | Agés de 16 ans et plus | | Au-dessous de 16 ans | | Agés de 16 ans et plus | | Au-dessous de 16 ans | |
| | Male Hommes | Female Femmes | Male Garçons | Female Filles | Male Hommes | Female Femmes | Male Garçons | Female Filles |
| British Columbia | | | | | | | | |
| Under \$5 | - | - | - | - | - | - | - | - |
| \$5 but under \$6 | - | - | - | - | - | - | - | - |
| \$6 but under \$7. | - | - | - | - | - | - | - | - |
| \$7 but under \$8. | - | - | - | - | - | - | - | - |
| \$8 but under \$9. | - | - | - | - | - | - | - | - |
| \$9 but under \$10 | - | - | - | - | - | - | - | - |
| \$10 but under \$11 | - | - | - | - | - | - | - | - |
| \$11 but under \$12. | 1 | 1 | - | - | - | - | 2 | - |
| \$12 but under \$13. | - | 3 | - | - | - | - | - | - |
| \$13 but under \$14. | 5 | 1 | - | - | - | 4 | - | - |
| \$14 but under \$15. | 5 | - | - | - | - | 6 | - | - |
| \$15 but under \$16. | 11 | - | - | - | - | 5 | - | - |
| \$16 but under \$18. | 17 | - | - | - | - | 3 | - | - |
| \$18 but under \$20. | 66 | - | - | - | - | - | - | - |
| \$20 but under \$22. | - | - | - | - | - | - | - | - |
| \$22 but under \$24. | 84 | - | - | - | - | - | - | - |
| \$24 but under \$26. | 110 | - | - | - | 609 | - | - | - |
| \$26 but under \$28. | 79 | - | - | - | 376 | - | - | - |
| \$28 but under \$30. | 153 | - | - | - | 64 | - | - | - |
| \$30 and over. | 756 | - | - | - | 458 | - | - | - |
| New Brunswick | | | | | | | | |
| Under \$5. | - | - | - | - | - | - | - | - |
| \$5 but under \$6. | - | - | - | - | - | - | - | - |
| \$6 but under \$7. | - | - | - | - | - | - | - | - |
| \$7 but under \$8. | 4 | 1 | - | - | - | - | - | - |
| \$8 but under \$9. | 2 | - | - | - | - | - | - | - |
| \$9 but under \$10. | 1 | - | - | - | - | - | - | - |
| \$10 but under \$11. | 8 | - | - | - | - | - | - | - |
| \$11 but under \$12. | 3 | - | - | - | - | - | - | - |
| \$12 but under \$13. | 13 | - | - | - | - | - | - | - |
| \$13 but under \$14. | 71 | - | - | - | - | - | - | - |
| \$14 but under \$15. | 46 | - | - | - | - | - | - | - |
| \$15 but under \$16. | 28 | - | - | - | - | - | - | - |
| \$16 but under \$18. | 65 | - | - | - | - | - | - | - |
| \$18 but under \$20. | 453 | - | - | - | - | - | - | - |
| \$20 but under \$22. | 117 | - | - | - | - | - | - | - |
| \$22 but under \$24. | 103 | - | - | - | - | - | - | - |
| \$24 but under \$26. | 57 | - | - | - | - | - | - | - |
| \$26 but under \$28. | 54 | - | - | - | - | - | - | - |
| \$28 but under \$30. | 17 | - | - | - | - | - | - | - |
| \$30 and over. | 45 | - | - | - | - | - | - | - |
| Nova Scotia | | | | | | | | |
| Under \$5. | - | - | - | - | - | - | - | - |
| \$5 but under \$6. | - | - | - | - | - | - | - | - |
| \$6 but under \$7. | - | - | - | - | - | - | - | - |
| \$7 but under \$8. | - | - | - | - | - | - | - | - |
| \$8 but under \$9. | - | - | - | - | - | - | - | - |
| \$9 but under \$10. | 2 | - | - | - | - | - | - | - |
| \$10 but under \$11. | - | - | - | - | - | - | - | - |
| \$11 but under \$12. | 2 | - | - | - | - | - | - | - |
| \$12 but under \$13. | 29 | - | - | - | - | - | - | - |
| \$13 but under \$14. | 36 | - | - | - | - | - | - | - |
| \$14 but under \$15. | 52 | - | - | - | - | - | - | - |
| \$15 but under \$16. | 56 | - | - | - | - | - | - | - |
| \$16 but under \$18. | 34 | - | - | - | - | - | - | - |
| \$18 but under \$20. | 23 | - | - | - | - | - | - | - |
| \$20 but under \$22. | 7 | - | - | - | - | - | - | - |
| \$22 but under \$24. | 2 | - | - | - | - | - | - | - |
| \$24 but under \$26. | 1 | - | - | - | - | - | - | - |
| \$26 but under \$28. | - | - | - | - | - | - | - | - |
| \$28 but under \$30. | 1 | - | - | - | - | - | - | - |
| \$30 and over. | - | - | - | - | - | - | - | - |

Table XIX. Classified weekly Wages by Provinces and Classes of Mills, 1919—*Concluded*.

| Provinces | Pulp Mills Pulperies | | | | Pulp and Paper Mills Pulperies et papeteries | | | |
|--------------------------|-----------------------------|------------------|--------------------------|------------------|---|------------------|--------------------------|------------------|
| | 16 years of age and over | | Under 16 years of age | | 16 years of age and over | | Under 16 years of age | |
| | Agés de 16 ans et plus | | Au-dessous de 16 ans | | Agés de 16 ans et plus | | Au-dessous de 16 ans | |
| | Male Hommes | Female Femmes | Male Garçons | Female Filles | Male Hommes | Female Femmes | Male Garçons | Female Filles |
| Ontario | | | | | | | | |
| Under \$5..... | - | - | - | - | - | - | - | - |
| \$5 but under \$6 | - | - | - | - | - | - | - | - |
| \$6 but under \$7.. | - | - | - | - | - | - | - | - |
| \$7 but under \$8.. | - | - | - | - | - | - | - | - |
| \$8 but under \$9 | - | - | - | - | - | - | - | - |
| \$9 but under \$10 | - | 1 | - | - | 6 | 12 | - | 1 |
| \$10 but under \$11 | - | - | - | - | 6 | 27 | - | - |
| \$11 but under \$12..... | - | - | - | - | - | - | - | - |
| \$12 but under \$13.. | - | - | - | - | - | 3 | - | - |
| \$13 but under \$14.. | - | - | - | - | - | 11 | 2 | - |
| \$14 but under \$15..... | - | - | - | - | 11 | - | - | - |
| \$15 but under \$16..... | 1 | - | - | - | 19 | 9 | - | - |
| \$16 but under \$18..... | 36 | - | - | - | 50 | 4 | - | - |
| \$18 but under \$20..... | 26 | - | - | - | 451 | 24 | - | - |
| \$20 but under \$22..... | 93 | 3 | - | - | 1,065 | 10 | - | - |
| \$22 but under \$24..... | 330 | - | - | - | 1,203 | - | - | - |
| \$24 but under \$26..... | 166 | - | - | - | 730 | - | - | - |
| \$26 but under \$28..... | 116 | - | - | - | 194 | - | - | - |
| \$28 but under \$30..... | 75 | - | - | - | 399 | - | - | - |
| \$30 and over..... | 224 | - | - | - | 1,432 | - | - | - |
| Quebec | | | | | | | | |
| Under \$5..... | - | - | - | - | - | 2 | - | - |
| \$5 but under \$6.. | 16 | - | 3 | - | - | 1 | 1 | 3 |
| \$6 but under \$7.. | 14 | 3 | 20 | - | 2 | 8 | 2 | 1 |
| \$7 but under \$8.. | 18 | 3 | - | - | 36 | 52 | 2 | 1 |
| \$8 but under \$9 | 12 | 1 | 18 | - | 40 | 46 | 3 | - |
| \$9 but under \$10 | 16 | - | 4 | - | 44 | 26 | 17 | - |
| \$10 but under \$11 | 9 | 1 | 12 | - | 45 | 21 | 8 | - |
| \$11 but under \$12 | 33 | - | 10 | - | 45 | 6 | 36 | - |
| \$12 but under \$13.. | 78 | 1 | 9 | - | 61 | 4 | 5 | - |
| \$13 but under \$14 | 41 | - | 5 | - | 96 | 2 | 9 | - |
| \$14 but under \$15.. | 108 | - | - | - | 179 | - | 3 | - |
| \$15 but under \$16.. | 86 | - | 10 | - | 423 | 7 | - | - |
| \$16 but under \$18 | 419 | - | - | - | 608 | - | - | - |
| \$18 but under \$20..... | 445 | - | - | - | 1,265 | 1 | 9 | - |
| \$20 but under \$22.. | 994 | 1 | - | - | 1,367 | - | 3 | - |
| \$22 but under \$24..... | 413 | - | - | - | 909 | - | 8 | - |
| \$24 but under \$26.. | 228 | - | - | - | 735 | - | 10 | - |
| \$26 but under \$28..... | 213 | 2 | 8 | - | 432 | - | 4 | - |
| \$28 but under \$30..... | 284 | - | - | - | 333 | - | - | - |
| \$30 and over... | 248 | - | - | - | 732 | - | - | - |
| Canada | | | | | | | | |
| Under \$5 | - | - | - | - | - | 2 | - | - |
| \$5 but under \$6 | 16 | - | 3 | - | - | 1 | 1 | 3 |
| \$6 but under \$7 | 14 | 3 | 20 | - | 2 | 8 | 2 | 1 |
| \$7 but under \$8 | 22 | 4 | - | - | 36 | 52 | 2 | 1 |
| \$8 but under \$9..... | 14 | 1 | 18 | - | 40 | 46 | 3 | - |
| \$9 but under \$10 | 19 | 1 | 4 | - | 50 | 38 | 17 | 1 |
| \$10 but under \$11..... | 17 | 1 | 12 | - | 51 | 48 | 8 | - |
| \$11 but under \$12 | 39 | 1 | 10 | - | 45 | 6 | 38 | - |
| \$12 but under \$13 | 120 | 4 | 9 | - | 61 | 9 | 5 | - |
| \$13 but under \$14 | 153 | 1 | 5 | - | 103 | 17 | 11 | - |
| \$14 but under \$15.. | 211 | - | - | - | 190 | 6 | 3 | - |
| \$15 but under \$16 | 182 | - | 10 | - | 442 | 21 | - | - |
| \$16 but under \$18 | 571 | - | - | - | 658 | 7 | - | - |
| \$18 but under \$20..... | 1,013 | - | - | - | 1,716 | 25 | 9 | - |
| \$20 but under \$22.. | 1,211 | 3 | - | - | 2,432 | 10 | 3 | - |
| \$22 but under \$24.. | 932 | - | - | - | 2,112 | - | 8 | - |
| \$24 but under \$26 | 562 | - | - | - | 2,074 | - | 10 | - |
| \$26 but under \$28..... | 462 | 3 | 8 | - | 1,002 | - | 4 | - |
| \$28 but under \$30..... | 530 | - | - | - | 796 | - | - | - |
| \$30 and over..... | 1,273 | - | - | - | 2,622 | - | - | - |

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Tableau XIX. -Salaires hebdomadaires classifiés par provinces et par genres de fabriques
1919—*fin.*

| Paper Mills Papeteries | | | | All Mills Toutes fabriques | | | | Provinces |
|-----------------------------|------------------|--------------------------|------------------|-------------------------------|------------------|--------------------------|------------------|--------------------------|
| 16 years of age and over | | Under 16 years of age | | 16 years of age and over | | Under 16 years of age | | |
| Agés de 16 ans et plus | | Au-dessous de 16 ans | | Agés de 16 ans et plus | | Au-dessous de 16 ans | | |
| Male Hommes | Female Femmes | Male Garçons | Female Filles | Male Hommes | Female Femmes | Male Garçons | Female Filles | |
| | | | | | | | | Ontario |
| - | - | - | - | - | - | - | - | Au-dessous de \$5. |
| - | - | - | - | - | - | - | - | \$5 mais moins de \$6 |
| 1 | 6 | 2 | 1 | 1 | 6 | 2 | 1 | \$6 mais moins de \$7. |
| - | 8 | 4 | - | - | 8 | 4 | - | \$7 mais moins de \$8. |
| - | 27 | - | - | - | 27 | - | - | \$8 mais moins de \$9. |
| 1 | 37 | 2 | 3 | 7 | 50 | 2 | 4 | \$9 mais moins de \$10. |
| 4 | 40 | 1 | - | 10 | 67 | 1 | - | \$10 mais moins de \$11. |
| 1 | 27 | 1 | - | 1 | 27 | 1 | - | \$11 mais moins de \$12. |
| 12 | 24 | - | - | 12 | 27 | - | - | \$12 mais moins de \$13. |
| 18 | 10 | - | - | 25 | 21 | 2 | - | \$13 mais moins de \$14. |
| 17 | 13 | - | 1 | 28 | 13 | - | 1 | \$14 mais moins de \$15. |
| 26 | 5 | - | 1 | 46 | 14 | - | 1 | \$15 mais moins de \$16. |
| 50 | 17 | - | - | 136 | 21 | - | - | \$16 mais moins de \$18. |
| 124 | 20 | 1 | - | 601 | 44 | 1 | - | \$18 mais moins de \$20. |
| 117 | 1 | - | - | 1,275 | 14 | - | - | \$20 mais moins de \$22. |
| 80 | 4 | - | - | 1,613 | 4 | - | - | \$22 mais moins de \$24. |
| 136 | 2 | - | - | 1,032 | 2 | - | - | \$24 mais moins de \$26. |
| 105 | - | - | - | 415 | - | - | - | \$26 mais moins de \$28. |
| 127 | - | - | - | 601 | - | - | - | \$28 mais moins de \$30. |
| 173 | - | - | - | 1,829 | - | - | - | \$30 et plus. |
| | | | | | | | | Québec |
| - | - | - | - | - | 2 | - | - | Au-dessous de \$5. |
| 1 | - | 4 | 8 | 17 | 7 | 8 | 11 | \$5 mai moins de \$6 |
| 1 | 12 | 1 | 8 | 17 | 23 | 26 | 9 | \$6 mais moins de \$7. |
| 5 | 48 | 3 | 2 | 59 | 103 | 5 | 3 | \$7 mais moins de \$8. |
| 2 | 30 | - | 7 | 54 | 77 | 21 | 7 | \$8 mais moins de \$9. |
| 20 | 56 | - | 6 | 80 | 82 | 21 | 6 | \$9 mais moins de \$10. |
| 19 | 42 | 4 | - | 73 | 64 | 24 | - | \$10 mais moins de \$11. |
| 20 | 22 | - | - | 98 | 28 | 46 | - | \$11 mais moins de \$12. |
| 47 | 14 | - | - | 186 | 19 | 14 | - | \$12 mais moins de \$13. |
| 89 | 58 | - | - | 226 | 60 | 14 | - | \$13 mais moins de \$14. |
| 77 | 6 | - | - | 364 | 6 | 3 | - | \$14 mais moins de \$15. |
| 161 | - | 4 | - | 670 | 7 | 14 | - | \$15 mais moins de \$16. |
| 268 | 1 | - | - | 1,295 | 1 | - | - | \$16 mais moins de \$18. |
| 194 | 2 | - | - | 1,904 | 3 | 9 | - | \$18 mais moins de \$20. |
| 119 | 3 | - | - | 2,480 | 4 | 3 | - | \$20 mais moins de \$22. |
| 62 | - | - | - | 1,384 | - | 8 | - | \$22 mais moins de \$24. |
| 49 | - | - | - | 1,012 | - | 10 | - | \$24 mais moins de \$26. |
| 30 | - | - | - | 675 | 2 | 12 | - | \$26 mais moins de \$28. |
| 20 | - | - | - | 637 | - | - | - | \$28 mais moins de \$30. |
| 53 | - | - | - | 1,033 | - | - | - | \$30 et plus. |
| | | | | | | | | Canada |
| - | - | - | - | - | 2 | - | - | Au-dessous de \$5. |
| 1 | - | 4 | 8 | 17 | 7 | 8 | 11 | \$5 mais moins de \$6. |
| 2 | 18 | 6 | 9 | 18 | 29 | 28 | 10 | \$6 mais moins de \$7. |
| 5 | 56 | 7 | 2 | 63 | 112 | 9 | 3 | \$7 mais moins de \$8. |
| 2 | 57 | - | 7 | 56 | 104 | 21 | 7 | \$8 mais moins de \$9 |
| 21 | 93 | 2 | 9 | 90 | 132 | 23 | 10 | \$9 mais moins de \$10. |
| 23 | 82 | 5 | - | 91 | 131 | 25 | - | \$10 mais moins de \$11 |
| 21 | 49 | 1 | - | 105 | 56 | 49 | - | \$11 mais moins de \$12. |
| 59 | 38 | - | - | 240 | 51 | 14 | - | \$12 mais moins de \$13. |
| 107 | 68 | - | - | 363 | 86 | 16 | - | \$13 mais moins de \$14. |
| 94 | 19 | - | 1 | 495 | 25 | 3 | 1 | \$14 mais moins de \$15. |
| 187 | 5 | 4 | 1 | 811 | 26 | 14 | 1 | \$15 mais moins de \$16. |
| 318 | 18 | - | - | 1,547 | 25 | - | - | \$16 mais moins de \$18. |
| 318 | 22 | 1 | - | 3,047 | 47 | 10 | - | \$18 mais moins de \$20. |
| 236 | 4 | - | - | 3,879 | 17 | 3 | - | \$20 mais moins de \$22. |
| 142 | 4 | - | - | 3,186 | 4 | 8 | - | \$22 mais moins de \$24. |
| 185 | 2 | - | - | 2,821 | 2 | 10 | - | \$24 mais moins de \$26. |
| 135 | - | - | - | 1,599 | 3 | 12 | - | \$26 mais moins de \$28. |
| 147 | - | - | - | 1,473 | - | - | - | \$28 mais moins de \$30. |
| 226 | - | - | - | 4,121 | - | - | - | \$30 et plus. |

Table XX.—Averages of Working Time by Classes of Mills and Provinces, 1919.

| Provinces | Pulp Mills Pulperies | Pulp and Paper Mills Pulperies et papeteries | Paper Mills Papeteries | All Mills Toutes fabriques |
|---|-------------------------|---|---------------------------|----------------------------------|
| British Columbia—Colombie Britannique | | | | |
| Days on full time—Journées entières | 280 | 288 | - | 289 |
| Days on $\frac{3}{4}$ time— $\frac{3}{4}$ de journée | 2 | - | - | 1 |
| Days on $\frac{1}{2}$ time— $\frac{1}{2}$ journée | 2 | - | - | 1 |
| Days on less than $\frac{1}{2}$ time—Moins d'une $\frac{1}{2}$ journée | 1 | - | - | 5.5 |
| Days idle—Arrêt complet | 19 | 6 | - | 7.5 |
| Hours worked per shift—Heures de travail par jour | 10 | 8 | - | 9 |
| Hours worked per week—Heures de travail par semaine | 70 | 48 | - | 59 |
| New Brunswick—Nouveau-Brunswick | | | | |
| Days on full time—Journées entières | 262 | - | - | 262 |
| Days on $\frac{3}{4}$ time— $\frac{3}{4}$ de journée | 14 | - | - | 14 |
| Days on $\frac{1}{2}$ time— $\frac{1}{2}$ journée | 1 | - | - | 1 |
| Days on less than $\frac{1}{2}$ less time—Moins d'une $\frac{1}{2}$ journée | 3 | - | - | 3 |
| Days idle—Arrêt complet | 24 | - | - | 24 |
| Hours worked per shift—Heures de travail par jour | 8.6 | - | - | 8.6 |
| Hours worked per week—Heures de travail par semaine | 51.6 | - | - | 51.6 |
| Nova Scotia—Nouvelle-Ecosse | | | | |
| Days on full time—Journées entières | 217 | - | - | 217 |
| Days on $\frac{3}{4}$ time— $\frac{3}{4}$ de journée | 4 | - | - | 4 |
| Days on $\frac{1}{2}$ time— $\frac{1}{2}$ journée | 9 | - | - | 9 |
| Days on less than $\frac{1}{2}$ time—Moins d'une $\frac{1}{2}$ journée | - | - | - | - |
| Days idle—Arrêt complet | 74 | - | - | 74 |
| Hours worked per shift—Heures de travail par jour | 11.4 | - | - | 11.4 |
| Hours worked per week—Heures de travail par semaine | 68.4 | - | - | 68.4 |

Table XXI.—Miscellaneous Expenses by Classes of Mills and Provinces, 1919.

| Provinces | Rent of Offices, Works and Machinery | Rent of Power | Insurance | Taxes | | |
|-------------------------|---|---------------------------------|-----------|-----------------------------------|---|--|
| | Loyer de bureaux, usines et machineries | Loyer de la force motrice | Assurance | Excise — Droits d'accise | Excess profits tax — Sur les bénéfices | Provincial and Municipal — Provin- ciales et municipales |
| British Columbia | | | | | | |
| Pulp mills | - | - | 88,000 | - | - | 37,000 |
| Pulp and paper mills | 1,648 | 2,400 | 87,056 | 125,878 | 100,000 | 123,550 |
| Paper mills | - | - | - | - | - | - |
| All mills | 1,648 | 2,400 | 175,056 | 125,878 | 100,000 | 160,550 |
| New Brunswick | | | | | | |
| Pulp mills | 2,000 | - | 53,884 | - | 65,210 | 23,928 |
| Pulp and paper mills | - | - | - | - | - | - |
| Paper mills | - | - | - | - | - | - |
| All mills | 2,000 | - | 53,884 | - | 65,210 | 23,928 |
| Nova Scotia | | | | | | |
| Pulp mills | 71 | - | 7,141 | 2,998 | 957 | 4,792 |
| Pulp and paper mills | - | - | - | - | - | - |
| Paper mills | - | - | - | - | - | - |
| All mills | 71 | - | 7,141 | 2,998 | 957 | 4,792 |
| Ontario | | | | | | |
| Pulp mills | 1,704 | 118,723 | 49,497 | 20 | 100 | 51,986 |
| Pulp and paper mills | 228,655 | 608,252 | 126,343 | 184,185 | 40,890 | 10,500 |
| Paper mills | 11,894 | 64,740 | 24,561 | - | 58,745 | 21,692 |
| All mills | 242,253 | 791,715 | 200,401 | 184,205 | 99,735 | 87,178 |
| Quebec | | | | | | |
| Pulp mills | 30,281 | 35,929 | 63,309 | 612 | 43,083 | 80,006 |
| Pulp and paper mills | 12,927 | 855,021 | 340,961 | - | 215,611 | 223,812 |
| Paper mills | 6,011 | 76,489 | 50,505 | 822 | 1,000 | 21,292 |
| All mills | 49,219 | 967,439 | 454,775 | 1,494 | 259,694 | 325,110 |
| Canada | | | | | | |
| Pulp mills | 34,056 | 154,652 | 261,831 | 3,630 | 109,350 | 200,712 |
| Pulp and paper mills | 243,230 | 1,465,673 | 554,360 | 310,063 | 356,501 | 357,862 |
| Paper mills | 17,905 | 141,229 | 75,066 | 882 | 59,745 | 42,984 |
| All mills | 295,191 | 1,761,554 | 891,257 | 314,575 | 525,596 | 601,558 |

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Tableau XX.—Durée moyenne des opérations, par genres de fabriques et par provinces, 1919

| Provinces | Pulp Mills — Pulperies | Pulp and Paper Mills — Pulperies et papeteries | Paper Mills — Papeteries | All Mills — Toutes fabriques |
|---|------------------------------|--|--------------------------------|---------------------------------------|
| Ontario | | | | |
| Days on full time—Journées entières..... | 206 | 294 | 257 | 272.3 |
| Days on $\frac{3}{4}$ time— $\frac{3}{4}$ de journée..... | 15 | - | 1 | 8 |
| Days on $\frac{1}{2}$ time— $\frac{1}{2}$ journée..... | 1 | 5 | 10 | 5.3 |
| Days on less than $\frac{1}{2}$ time—Moins d'une $\frac{1}{2}$ journée..... | 2 | - | 1 | 1.5 |
| Days idle—Arrêt complet..... | 20 | 5 | 35 | 20 |
| Hours worked per shift—Heures de travail par jour..... | 8.3 | 7.7 | 9 | 8.3 |
| Hours worked per week—Heures de travail par semaine..... | 59.9 | 46 | 51 | 52.3 |
| Quebec | | | | |
| Days on full time—Journées entières..... | 219 | 290 | 282 | 263.6 |
| Days on $\frac{3}{4}$ time— $\frac{3}{4}$ de journée..... | 7 | 6 | 2 | 5 |
| Days on $\frac{1}{2}$ time— $\frac{1}{2}$ journée..... | 12 | 2 | 5 | 6.3 |
| Days on less than $\frac{1}{2}$ time—Moins d'une $\frac{1}{2}$ journée..... | 10 | - | 1 | 5.5 |
| Days idle—Arrêt complet..... | 56 | 6 | 14 | 25.3 |
| Hours worked per shift—Heures de travail par jour..... | 10.1 | 8.3 | 9.2 | 9.2 |
| Hours worked per week—Heures de travail par semaine..... | 60.5 | 50.9 | 58.4 | 56.6 |
| Canada | | | | |
| Days on full time—Journées entières..... | 240 | 293 | 270 | 267.6 |
| Days on $\frac{3}{4}$ time— $\frac{3}{4}$ de journée..... | 9 | 2 | 1 | 4 |
| Days on $\frac{1}{2}$ time— $\frac{1}{2}$ journées..... | 7 | 3 | 8 | 6 |
| Days on less than $\frac{1}{2}$ time—Moins d'une $\frac{1}{2}$ journée..... | 5 | - | 1 | 3 |
| Days idle—Arrêt complet..... | 43 | 6 | 24 | 24.6 |
| Hours worked per shift—Heures de travail par jour..... | 9.7 | 8 | 9.4 | 9 |
| Hours worked per week—Heures de travail par semaine..... | 61 | 48 | 56.5 | 55.2 |

Tableau XXI.—Frais généraux, par genres de fabriques et par provinces, 1919.

| Royalties, Use of Patents, etc. Droits régaliens, usage de brevets, etc. | Advertising Expenses Dépenses de publicité | Travelling Expenses Frais de voyage | Ordinary repairs to buildings and machinery Réparations ordinaires aux bâtiments et à la machinerie | All other sundry expenses Toutes autres dépenses diverses | Total | Provinces |
|--|--|---|---|--|------------|-----------------------------|
| \$ | \$ | \$ | \$ | \$ | \$ | |
| - | 1,970 | 10,730 | - | 535,692 | 673,392 | Colombie Britannique |
| - | - | - | 594,812 | 1,094,889 | 2,130,233 | Pulperies. |
| - | - | - | - | - | - | Pulperies et papeteries. |
| - | 1,970 | 10,730 | 594,812 | 1,630,581 | 2,803,625 | Papeteries. |
| - | - | - | - | - | - | Toutes fabriques. |
| - | 2,511 | 3,289 | 382,660 | 731,220 | 1,264,702 | Nouveau-Brunswick |
| - | - | - | - | - | - | Pulperies. |
| - | - | - | - | - | - | Pulperies et papeteries. |
| - | - | - | - | - | - | Papeteries. |
| - | 2,511 | 3,289 | 382,660 | 731,220 | 1,264,702 | Toutes fabriques. |
| - | - | - | - | - | - | Nouvelle-Ecosse |
| - | - | 1,021 | 31,137 | 24,057 | 72,174 | Pulperies. |
| - | - | - | - | - | - | Pulperies et papeteries. |
| - | - | - | - | - | - | Papeteries. |
| - | - | 1,021 | 31,137 | 24,057 | 72,171 | Toutes fabriques. |
| 5,600 | 1,670 | 10,924 | 75,442 | 89,380 | 408,046 | Ontario |
| - | 1,802 | 145,628 | 1,237,898 | 642,406 | 3,226,559 | Pulperies. |
| 15,037 | 9,745 | 19,193 | 168,882 | 308,964 | 703,453 | Pulperies et papeteries. |
| - | - | - | - | - | - | Papeteries. |
| 20,637 | 13,217 | 175,745 | 1,482,222 | 1,040,750 | 4,338,058 | Toutes fabriques. |
| 8,468 | 2,532 | 32,048 | 786,425 | 702,864 | 1,785,557 | Québec |
| 136 | 40,393 | 67,537 | 1,595,591 | 2,503,214 | 5,855,203 | Pulperies. |
| - | 57,041 | 48,584 | 290,318 | 357,971 | 910,093 | Pulperies et papeteries. |
| - | - | - | - | - | - | Papeteries. |
| 8,604 | 99,966 | 148,139 | 2,672,334 | 3,564,049 | 8,550,853 | Toutes fabriques. |
| 14,068 | 8,683 | 58,012 | 1,275,664 | 2,083,213 | 4,203,871 | Canada |
| 136 | 42,195 | 213,165 | 3,428,301 | 4,240,509 | 11,211,995 | Pulperies. |
| 15,037 | 66,786 | 67,777 | 459,200 | 666,935 | 1,613,546 | Pulperies et papeteries. |
| - | - | - | - | - | - | Papeteries. |
| 29,241 | 117,664 | 338,954 | 5,163,165 | 6,990,657 | 17,029,412 | Toutes fabriques. |

Table XXII. Exports of Pulp-wood from Canada in the calendar years 1916-1917-1918-1919 and for each Province by quantities and values.

| Provinces | 1916 | | 1917 | |
|------------------|-----------|-----------|-----------|-----------|
| | Quantity | Value | Quantity | Value |
| | Quantité | Valeur | Quantité | Valeur |
| | Cords | \$ | Cords | \$ |
| British Columbia | 118 | 354 | 329 | 747 |
| New Brunswick | 127,730 | 726,293 | 156,255 | 1,145,967 |
| Nova Scotia | 3,735 | 27,883 | 770 | 5,498 |
| Ontario | 149,745 | 915,025 | 161,652 | 1,166,316 |
| Quebec | 786,879 | 5,197,114 | 698,839 | 5,603,894 |
| Canada | 1 068,207 | 6,866,669 | 1,017,845 | 7,922,422 |

Table XXIII. Production, Manufacture and Export of Pulp-wood compared for the Calendar years, 1917, 1918 and 1919, by Provinces.

| Schedule | 1917 | | | 1918 | | |
|------------------|-----------|------------|------------------|-----------|------------|------------------|
| | Quantity | Value | Value per Cord | Quantity | Value | Value per Cord |
| | Quantité | Valeur | Valeur par corde | Quantité | Valeur | Valeur par corde |
| | Cords | \$ | \$ | Cords | \$ | \$ |
| Canada | Cordes | | | Cordes | | |
| Production | 3,122,188 | 26,739,905 | 8.56 | 3,560,280 | 37,886,259 | 10.64 |
| Manufacture | 2,104,334 | 18,817,483 | 8.94 | 2,210,744 | 24,886,475 | 11.26 |
| Export | 1,017,854 | 7,922,422 | 7.78 | 1,349,536 | 12,999,784 | 9.63 |
| Quebec | | | | | | |
| Production | 1,808,708 | 15,155,326 | 8.38 | 1,971,250 | 19,429,777 | 9.85 |
| Manufacture | 1,109,869 | 9,551,432 | 8.60 | 1,085,478 | 11,061,191 | 10.19 |
| Export | 698,839 | 5,603,894 | 8.05 | 885,772 | 8,368,586 | 9.45 |
| Ontario | | | | | | |
| Production | 897,343 | 8,596,671 | 9.58 | 984,112 | 12,251,895 | 12.45 |
| Manufacture | 735,691 | 7,430,355 | 10.10 | 784,691 | 10,395,717 | 13.25 |
| Export | 161,652 | 1,166,316 | 7.21 | 199,421 | 1,856,178 | 9.31 |
| New Brunswick | | | | | | |
| Production | 261,841 | 1,879,449 | 7.18 | 374,040 | 3,694,638 | 9.88 |
| Manufacture | 105,586 | 733,482 | 6.95 | 110,133 | 920,854 | 8.35 |
| Export | 156,255 | 1,145,967 | 7.33 | 263,907 | 2,773,784 | 10.51 |
| British Columbia | | | | | | |
| Production | 135,143 | 969,510 | 7.17 | 219,210 | 2,436,133 | 11.11 |
| Manufacture | 134,814 | 968,763 | 7.19 | 218,774 | 2,434,897 | 7.19 |
| Export | 329 | 747 | 2.30 | 436 | 1,236 | 2.84 |
| Nova Scotia | | | | | | |
| Production | 19,094 | 138,949 | 7.28 | 11,668 | 73,816 | 7.26 |
| Manufacture | 18,324 | 133,451 | 7.28 | 11,668 | 73,816 | 7.26 |
| Export | 770 | 5,498 | 7.14 | - | - | - |

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Tableau XXII.—Exportations de bois de pulpe du Canada dans les années 1916-1917-1918-1919 pour chaque province, par quantités et valeurs.

| 1918 | | 1919 | | Provinces |
|------------------|-------------------|------------------|-------------------|-----------------------|
| Quantity | Value | Quantity | Value | |
| Quantité | Valeur | Quantité | Valeur | |
| Cords | \$ | Cords | \$ | |
| 436 | 1,236 | 1,754 | 8,905 | Colombie Britannique. |
| 263,907 | 2,773,784 | 195,354 | 2,031,258 | Nouveau-Brunswick. |
| — | — | 15,712 | 130,196 | Nouvelle-Ecosse. |
| 199,421 | 1,856,178 | 196,041 | 1,998,798 | Ontario. |
| 885,772 | 8,368,586 | 661,414 | 6,424,424 | Québec |
| 1,349,536 | 12,999,784 | 1,070,275 | 10,593,581 | Canada. |

Tableau XXIII.—Production, consommation et exportation de bois à pulpe comparées, pour les années 1917, 1918 et 1919, par provinces.

| 1919 | | | Per cent distribution of pulp wood | | | Enumération |
|----------------------|------------|------------------|------------------------------------|-------|-------|---------------|
| Quantity | Value | Value per Cord | Pourcentage de répartition | | | |
| Quantité | Valeur | Valeur par corde | 1917 | 1918 | 1919 | |
| Cords Cordes | \$ | \$ | Cords Cordes | \$ | \$ | |
| Canada | | | | | | |
| 3,498,981 | 41,941,267 | 11.98 | 100.0 | 100.0 | 100.0 | Production |
| 2,428,706 | 31,347,686 | 12.90 | 70.4 | 65.7 | 69.0 | Consommation. |
| 1,070,275 | 10,593,581 | 9.89 | 29.6 | 34.3 | 31.0 | Exportation. |
| Québec | | | | | | |
| 1,837,545 | 20,255,158 | 11.02 | 100.0 | 100.0 | 100.0 | Production. |
| 1,176,134 | 13,830,734 | 10.19 | 63.0 | 56.9 | 64.0 | Consommation. |
| 661,414 | 6,424,424 | 9.71 | 37.0 | 43.1 | 36.0 | Exportation. |
| Ontario | | | | | | |
| 1,036,897 | 15,112,592 | 14.57 | 100.0 | 100.0 | 100.0 | Production |
| 840,856 | 13,113,794 | 15.60 | 86.4 | 84.8 | 81.0 | Consommation. |
| 196,041 | 1,998,798 | 10.19 | 13.6 | 15.2 | 19.0 | Exportation. |
| Nouveau-Brunswick | | | | | | |
| 335,961 | 3,491,200 | 10.39 | 100.0 | 100.0 | 100.0 | Production. |
| 140,607 | 1,459,942 | 10.38 | 39.0 | 24.9 | 41.8 | Consommation. |
| 195,354 | 2,031,258 | 10.39 | 61.0 | 75.1 | 58.2 | Exportation. |
| Colombie Britannique | | | | | | |
| 252,112 | 2,798,602 | 11.10 | 100.0 | 100.0 | 100.0 | Production. |
| 250,358 | 2,789,697 | 11.15 | 99.9 | 99.9 | 99.3 | Consommation. |
| 1,754 | 8,905 | 5.07 | 0.1 | 0.1 | 0.7 | Exportation. |
| Nouvelle-Ecosse | | | | | | |
| 36,463 | 283,715 | 7.78 | 100.0 | 100.0 | 100.0 | Production. |
| 20,751 | 153,519 | 7.40 | 96.0 | 100.0 | 56.8 | Consommation. |
| 15,712 | 130,196 | 8.28 | 4.0 | - | 43.2 | Exportation. |

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Table XXIV. Exports of Wood-pulp by Countries for the Calendar years 1917, 1918 and 1919
Tableau XXIV. Exportations de pulpe de bois par pays, pour les années 1917, 1918 et 1919

| Kinds of pulp and countries to which exported Espèces de pulpe et pays de destination | 1917 | | | 1918 | | | 1919 | | |
|--|---------------|------------|-------------------------------------|---------------|------------|-------------------------------------|---------------|------------|-------------------------------------|
| | Quan- tity | Value | Ave- rage value per ton | Quan- tity | Value | Ave- rage value per ton | Quan- tity | Value | Ave- rage value per ton |
| | Quan- tité | Valeur | Valeur moy- enne par tonne | Quan- tité | Valeur | Valeur moy- enne par tonne | Quan- tité | Valeur | Valeur moy- enne par tonne |
| | tons | \$ | \$ | tons | \$ | \$ | tons | \$ | \$ |
| Total wood pulp exported Total de la pulpe de bois exportée. | 511,803 | 26,192,906 | 51.17 | 583,911 | 33,359,923 | 57.13 | 709,129 | 37,185,009 | 52.43 |
| Mechanical pulp—De fabrication mécanique. | 250,043 | 7,082,206 | 28.32 | 181,061 | 4,786,044 | 26.43 | 311,551 | 7,182,451 | 23.05 |
| Chemical pulp—De fabrication chimique..... | 261,760 | 19,110,700 | 73.01 | 402,850 | 28,573,879 | 70.93 | 397,578 | 30,002,558 | 75.46 |
| To United States—Aux Etats- Unis | 473,819 | 23,049,292 | 48.61 | 544,188 | 30,156,873 | 55.41 | 492,927 | 27,970,021 | 56.71 |
| Mechanical pulp—De fabrication mécanique. | 248,375 | 7,048,306 | 28.38 | 178,409 | 4,727,717 | 26.49 | 176,723 | 4,639,907 | 26.25 |
| Chemical pulp—De fabrication chimique..... | 225,474 | 16,000,985 | 70.96 | 365,779 | 25,429,156 | 69.52 | 316,204 | 23,330,117 | 73.78 |
| To United Kingdom—Au Royau- me-Uni | 20,875 | 2,037,017 | 97.58 | 5,102 | 428,049 | 83.90 | 131,629 | 4,715,435 | 35.02 |
| Mechanical pulp—De fabrication mécanique. | - | - | - | - | - | - | 94,643 | 1,727,835 | 18.25 |
| Chemical pulp—De fabrication chimique..... | 20,875 | 2,037,017 | 97.58 | 5,102 | 428,049 | 83.90 | 39,986 | 2,987,630 | 74.71 |
| To France—En France | 1,668 | 33,900 | 20.32 | - | - | - | 42,517 | 1,004,759 | 23.61 |
| Mechanical pulp—De fabrication mécanique..... | 1,668 | 33,900 | 20.32 | - | - | - | 39,989 | 808,257 | 20.21 |
| Chemical pulp—De fabrication chimique..... | - | - | - | - | - | - | 2,558 | 196,502 | 76.81 |
| To Japan—Au Japon | 13,762 | 933,350 | 67.82 | 28,547 | 2,474,148 | 86.67 | 33,207 | 2,965,616 | 89.30 |
| Mechanical pulp—De fabrication mécanique..... | - | - | - | - | - | - | 19 | 535 | 28.10 |
| Chemical pulp—De fabrication chimique..... | 13,762 | 933,350 | 67.82 | 28,547 | 2,474,148 | 86.67 | 33,188 | 2,965,081 | 89.34 |
| To all other Countries—Aux autres pays. | 1,619 | 139,517 | 84.50 | 6,074 | 300,853 | 49.53 | 5,814 | 529,145 | 91.01 |
| Mechanical pulp—De fabrication mécanique..... | - | - | - | 2,652 | 58,327 | 21.99 | 174 | 5,917 | 34.00 |
| Chemical pulp—De fabrication chimique..... | 1,619 | 139,347 | 84.50 | 3,422 | 242,526 | 70.87 | 5,640 | 523,228 | 92.77 |

Table XXV. -Imports of wood pulp for the calendar years 1917, 1918 and 1919 by Countries
Tableau XXV. Importations de pulpe de bois pour les années 1917, 1918 et 1919, par pays.

| Countries from which imported—Pays de provenance | 1917 | 1918 | 1919 | |
|---|---------|---------|------------|---------|
| | Value | Value | Quantity | Value |
| | Valeur | Valeur | Quantité | Valeur |
| | \$ | \$ | \$ | \$ |
| Total value of imports—Valeur totale des importations | 587,369 | 470,516 | 26,141,128 | 609,804 |
| United States—Etats-Unis..... | 587,369 | 470,516 | 26,133,964 | 607,934 |
| United Kingdom—Royaume-Uni..... | - | - | 7,164 | 1,870 |

SESSIONAL PAPER No. 17

Table XXVI.—Exports of paper, the Produce of Canada for the Calendar years, 1917, 1918 and 1919.

Tableau XXVI.—Exportation de papier de fabrication canadienne pendant les années 1917, 1918 et 1919.

| Kinds—Espèces | 1917 | | 1918 | | 1919 | |
|--|------------|------------|------------|------------|------------|------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | Quantité | Valeur | Quantité | Valeur | Quantité | Valeur |
| | | \$ | | \$ | | \$ |
| Paper, wall, rolls—Papier à tapisserie, rouleaux..... | 1,549,504 | 122,556 | 2,893,931 | 268,860 | 3,517,326 | 333,415 |
| Paper felt and roofing—Papier feutre et à toiture..... | - | 340,227 | - | 379,988 | - | 420,779 |
| Paper wrapping, lb.—Papier d'emballage, liv..... | 22,622,500 | 1,158,348 | 26,197,400 | 1,767,567 | 36,833,100 | 2,959,505 |
| Paper, printing, cwt.—Papier à imprimer, qtx..... | 11,923,737 | 32,561,020 | 12,730,671 | 37,301,269 | 14,168,577 | 49,811,362 |
| Paper, all other—Tout autre papier..... | - | 1,439,781 | - | 3,233,075 | - | 6,458,208 |
| Total | - | 35,621,932 | - | 42,950,759 | - | 59,983,269 |

Table XXVII.—Imports of Paper for the Calendar years, 1917, 1918 and 1919.

Tableau XXVII.—Importations de papier pendant les années 1917, 1918 et 1919.

| Kinds—Espèces | 1917 | | 1918 | | 1919 | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | Quantité | Valeur | Quantité | Valeur | Quantité | Valeur |
| | | \$ | | \$ | | \$ |
| Card-board, not pasted or coated—Carton, fin, ni collé, ni enduit..... | - | 184,666 | - | 269,272 | - | 426,480 |
| Hanging or wall paper, including borders, rolls of 8 yds—Papier à tapisserie, y compris bordure, rouleaux de 8 vgs. | 2,134,074 | 255,518 | 1,702,544 | 224,797 | 2,195,536 | 337,236 |
| Millboard not coated or pasted—Carton de pâte, ni enduit, ni collé..... | - | 92,070 | - | 119,716 | - | * |
| Printing papers, lb.—Papiers à imprimer, liv..... | 6,386,339 | 555,165 | 5,694,196 | 544,196 | 5,376,709 | 574,217 |
| Ruled and bordered and coated papers, boxed paper and papeteries—Papier rayé et margé, papier glacé, papier à lettres et papeteries..... | - | 312,583 | - | 573,622 | - | 273,787 |
| Straw board, not pasted, or coated, lb.—Carton de paille, ni enduit, ni collé, liv..... | 9,865,872 | 257,447 | - | 284,718 | - | 304,841 |
| Tarred and other building papers, n.o.p.—Papier goudronné et autres papiers de construction, n.a.e..... | - | 304,684 | - | 337,073 | - | 387,149 |
| Wrapping paper, lb.—Papier d'emballage, liv..... | 4,665,895 | 246,369 | 4,937,515 | 279,916 | 4,778,633 | 369,146 |
| Paper, all other—Tout autre papier..... | - | 5,670,813 | - | 5,847,188 | - | 6,573,558 |
| Total | - | 7,879,315 | - | 8,480,498 | - | 9,246,414 |

*Included with cardboard, not pasted or coated, for 1919.
'En 1919, figure avec carton fin, ni enduit, ni collé.

APPENDIX--APPENDICE

PULP AND PAPER MILLS IN CANADA, 1919
FABRIQUES DE PULPE ET DE PAPIER DU CANADA, 1919

The following is a list of the producing mills in operation during 1919, arranged by provinces, classes of mills and products.

Voici une liste des établissements producteurs, qui étaient en activité en 1919: ils sont classés par provinces, par genres de fabriques et produits.

PULP MILLS—PULPERIES

| Name Nom | Location Endroit | Classes of products Genres de produits | |
|---|-------------------------|---|-----------------------------------|
| | | Pulp Pulpe | |
| | | | |
| Whalen Pulp and Paper Mills, Ltd | Mill Creek | B.C. | Sulphite, unbl |
| Whalen Pulp and Paper Mills, Ltd. | Swanson Bay..... | B.C. | Sulphite, unbl. |
| Whalen Pulp and Paper Mills, Ltd.. | Port Alice..... | B.C. | Sulphite, bl. and, unbl. |
| Panstock Corporation | Caledonia..... | N.S. | Ground wood. |
| Nova Scotia Wood Pulp and Paper Co., Ltd. (successors to | Charleston..... | N.S. | Ground wood. |
| Medway Pulp and Power Co.)..... | Liverpool..... | N.S. | Ground wood. |
| Macleod Pulp and Paper Co., Ltd | Port Clyde..... | N.S. | Ground wood. |
| Becker and Co. of America, Ltd.(succ. to (Clyde Pulp Co.) | New Germany..... | N.S. | Ground wood. |
| La Have Pulp Company, Ltd..... | | | |
| Bathurst Lumber Co., Ltd..... | Bathurst..... | N.B. | Sulphite unbl. and sul- phate. |
| Dominion Pulp Co., Ltd..... | Chatham..... | N.B. | Sulphite, unbl. |
| Fraser Companies, Limited | Edmundston | N.B. | Sulphite, unbl. |
| Nashwaak Pulp and Paper Co., Limited..... | Fairville, St. John | N.B. | Sulphite, bl. |
| St. George Pulp and Paper Co., Ltd. | St. George..... | N.B. | Ground wood. |
| Riordon Pulp and Paper Co., Ltd..... | Merritton..... | Ont. | Sulphite, bl. |
| Mattagami Pulp and Paper Co., Ltd | Smooth Rock Falls..... | Ont. | Sulphite, unbl. |
| Port Arthur Pulp and Paper Co., Ltd. | Port Arthur.. | Ont. | Sulphite, bl. and unbl. |
| Riordon Pulp and Paper Co., Ltd..... | Hawkesbury. | Ont. | Sulphite, bl. and unbl. |
| Hydro-Electric Power Commission of Ontario | Campbellford..... | Ont. | Ground wood. |
| Thorold Pulp Co., Ltd..... | Thorold | Ont. | Ground wood. |
| Foley-Rieger Pulp and Paper Co., Ltd. | Thorold..... | Ont. | Ground wood. |
| Bronson Co., Ltd.... | Ottawa | Ont. | Ground wood. |
| St. Lawrence Pulp and Lumber, Corporation. | Chicoutimi..... | Qué. | Sulphite, unbl. |
| Ha Ha Bay Sulphite Co., Ltd..... | Port Alfred..... | Qué. | Sulphite, unbl. |
| Brown Corporation. | La Tuque | Qué. | Sulphate. |
| Compagnie de Pulpe de Chicoutimi | Chicoutimi..... | Qué. | Ground wood. |
| Compagnie de Pulpe de Chicoutimi. | Val Jalbert | Qué. | Ground wood. |
| James Maclaren Co., Ltd. | Buckingham..... | Qué. | Ground wood. |
| Brompton Pulp and Paper Co., Ltd. | Bromptonville | Qué. | Ground wood. |
| Donnacona Paper Co., Ltd..... | Pont Rouge | Que. | Ground wood. |
| Lake Megantic Pulp Co.... | Lake Megantic | Qué. | Ground wood. |
| Nairn Falls Power and Pulp Co., Ltd | Murray Bay..... | Qué. | Ground wood. |
| F. F. Soucy. | Old Lake, Road..... | Qué. | Ground wood. |
| Henry Atkinson, Regd..... | Pont Etchemin | Qué. | Ground wood. |
| J. C. Wilson, Ltd..... | St. Jérôme | Qué. | Ground wood. |
| Quebec-Saguenay Pulp Co., Ltd..... | St. Amédée de Péribonka | Qué. | Ground wood. |
| Price-Porritt Pulp and Paper Co., Ltd | Rimouski | Qué. | Ground wood. |
| Gulf Pulp and Paper Company..... | Clarke City | Qué. | Ground wood. |
| Rivière du Loup Pulp Co., Ltd. (in liquidation) | Rivière du Loup.... | Qué. | Ground wood. |

SESSIONAL PAPER No. 17

PULP AND PAPER MILLS—PULPERIES ET PAPETERIES

| Name Nom | Location Endroit | Classes of Products Genres de produits | |
|--|---------------------|---|---|
| | | Pulp Pulpe | Paper Papier |
| | | | |
| Powell River Co., Ltd..... | Powell River.. | B.C. G.W., Sulphite unbleached. | N.P., W.P. |
| Pacific Mills, Ltd..... | Ocean Falls. | B.C. G.W., Sulphite unbl Sulphate. | N.P., W.P. |
| Toronto Paper Manufacturing Co., Ltd..... | Cornwall.. | Ont. Sulphite, bl..... | B.K. and W.P. |
| Lincoln Paper Mills Co., Ltd.. | Merritton.. | Ont. Sulphite, unbl..... | N.P., W.P. |
| Spanish River Pulp and Paper Mills Ltd. | Espanola | Ont. Sulphite, unbl. and G.W. | N.P. |
| Spanish River Pulp and Paper Mills, Ltd... | Sturgeon Falls. | Ont. Sulphite unbl. and G.W. | N.P. |
| Spanish River Pulp and Paper Mills, Ltd. (Lake Superior Paper Co., Ltd.).. | Sault Ste. Marie | Ont. Sulphite, unbl. and G.W. | N.P. W.P., B. |
| Abitibi Power and Paper Co., Ltd..... | Iroquois Falls. | Ont. Sulphite, unbl. and G.W. | N.P. |
| J. R. Booth, Ltd..... | Ottawa | Ont. Sulphite, unbl. and G.W. | N.P., B. |
| Beaver Wood Fibre Co., Ltd | Thorold..... | Ont. Ground wood | B. |
| Dryden Pulp and Paper Co., Ltd..... | Dryden | Ont. Sulphate | W.P. |
| Provincial Paper Mills Co., Ltd.. | Georgetown. | Ont. Soda..... | B.k. and W.P. |
| Fort Frances Pulp and Paper Co., Ltd | Fort Frances | Ont. Ground wood | N.P. |
| Canada Boxboard Co., Ltd..... | Frankford... | Ont. Ground wood | B. |
| Ontario Paper Co., Ltd | Thorold.. | Ont. Sulphite, unbl. and G.W. | N.P. and W.P. |
| Donnacona Paper Co., Ltd... | Donnacona | Qué. Sulphite, unbl. and G.W. | N.P. |
| E. B. Eddy Co., Ltd..... | Hull | Qué. Sulphite, unbl. and G.W. | N.P., B.k. and W.P., W.P., B. and Misc., P. |
| Price Brothers and Co., Ltd..... | Kenogami | Qué. Sulphite, unbl. and G.W. | N.P. |
| Belgo-Canadian Pulp and Paper Co., Ltd | Shawinigan Falls. | Qué. Sulphite, unbl. and G.W. | N.P. |
| Laurentide Co., Ltd..... | Grand'Mère..... | Qué. Sulphite, unbl. and G.W. | N.P., B. |
| St. Maurice Paper Co., Ltd..... | Cap Madelaine.... | Qué. Sulphite, unbl. Sulphate and G.W. | N.P. |
| Wayagamack Pulp and Paper Co., Ltd. | Three Rivers..... | Qué. Sulphate..... | W.P. |
| Brompton Pulp and Paper Co., Ltd | Fast Angus | Qué. Sulphate and G.W. | N.P., W.P., B. |
| Dominion Paper Co., Ltd | Kingsey Falls..... | Qué. Sulphate and G.W. | N.P., W.P., Misc.P. |
| Canada Paper Co., Ltd..... | Windsor Mills | Qué. Soda and G.W... | N.P., Bk., and W.P. W.P. |
| News Pulp and Paper Co., Ltd. | St. Raymond | Qué. Ground wood... | N.P. |
| Jonquière Pulp Co., Ltd. (Price Brothers Co., Ltd.) | Jonquières | Qué. Ground wood.. | B., Misc. P. |

PAPER MILLS—PAPETERIES

| Name Nom | Location Endroit | Classes of paper Genres de papier |
|--|---------------------|--|
| Interlake Tissue Mills, Ltd. | Merritton | Ont. Bk. and W.P., W.P., Toilet and Tissue, Misc. P. |
| Provincial Paper Mills Co., Ltd. | Mille Roches | Ont. Bk. and W.P. |
| Camden Paper Mills, Ltd. | Newburgh | Ont. W.P. and Misc. P. |
| Provincial Paper Mills, Ltd. | Georgetown | Ont. Bk. and W.P. |
| Northumberland Paper and Electric Co., Ltd | Campbellford | Ont. B. |
| Strathcona Paper Co. | Strathcona | Ont. B.R.S.P. |
| Ritchie and Ramsay, Ltd. | New Toronto | Ont. Bk. and W.P. |
| Garden City Paper Mills Co., Ltd. | St. Catharines | Ont. Toilet and Tissue. |
| Garden City Paper Mills Co., Ltd. | Merritton | Ont. Toilet and Tissue. |
| Kinleith Paper Mills, Ltd. | St. Catharines | Ont. Bk. and W.P. |
| James Stutt and Sons. | West Flamborough. | Ont. W.P. |
| Provincial Paper Mills Co., Ltd. | Thorold | Ont. Bk. and W.P. |
| Hinde and Dauch Paper Co. of Canada, Ltd. | Toronto | Ont. B. |
| Geo. La Monte and Son, Ltd. | Toronto | Ont. Bk. and W.P. |
| Don Valley Paper Co., Ltd. | Toronto | Ont. N.P., Bk., and W.P., W.P., Misc. P. |
| Miller Brothers Co., Limited. | Glen Miller. | Ont. B. and Misc. P. |
| Bennett, Ltd. | Chambly Canton | Qué. B. |
| Howard Smith Paper Mills, Ltd. | Beauharnois | Qué. Bk. and W.P. |
| Howard Smith Paper Mills, Ltd. | Crabtree Mills. | Qué. Bk. and W.P., Misc., P. |
| Alex. McArthur and Co., Ltd. | Joliette | Qué. N.P., W.P., B.R.S.P., Misc. P. |
| J. C. Wilson, Ltd. | Lachute | Qué. W.P., Toilet. |
| Canada Boxboard Co., Ltd. | Montreal | Qué. B. |
| J. Ford and Co. | Portneuf | Qué. N.P., W.P. |
| Rolland Paper Co., Ltd. | Mont Rolland | Qué. Bk. and W.P. |
| Rolland Paper Co., Ltd. | St. Jérôme | Qué. Bk. and W.P. |
| Bird and Son, Ltd. | Pont Rouge | Qué. B.R.S.P. |
| Rowland Ford and Son | Portneuf | Qué. B.R.S.P. |
| Eastern Paper Co., Ltd. | St. Basile | Qué. B.R.S.P. |
| Samuel Tremblay | Sault à la Puce | Qué. B. |
| J. R. Walker and Co., Ltd. | Sault aux Récollet | Qué. B., B.R.S.P. |
| National Paper Co., Ltd. | Valleyfield | Qué. Bk. and W.P. |
| Montreal Paper Co., Ltd. | Portneuf | Qué. B.R.S.P. |
| Ru-ber-oid Felt Manufacturing Co., Ltd. | Portneuf | Qué. W.P., B.R.S.P. |

Abbreviations used—Abréviations usitées:—
Bl Bleached.
Unbl Unbleached.
N.P. Newsprint.
Bk. and W.P. Book and writing paper.
W.P. Wrapping paper.
B. Boards.
B.R.S.P. Building, roofing and sheathing paper.
Misc. P. Miscellaneous products.
G.W. Ground wood.

CANADA
BUREAU FÉDÉRAL DE LA STATISTIQUE

RECENSEMENT INDUSTRIEL, 1919

PULPE ET PAPIER
1919

(Préparé en collaboration avec la Division Forestière du Dominion,
le ministère des Terres Domaniales de la Nouvelle-Ecosse,
le ministère des Terres et des Mines du Nouveau-
Brunswick, le ministère des Terres et des
Forêts de Québec et le ministère des
Terres de la Colombie
Britannique.)

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OTTAWA
F. A. ACLAND
IMPRIMEUR DE SA TRÈS EXCELLENTE MAJESTÉ LE ROI

1921

RECENSEMENT INDUSTRIEL, 1919.**PULPE ET PAPIER****Préface.**

Les statistiques de l'industrie de la pulpe et du papier réunies dans ce rapport ont été recueillies et compilées en 1920; elles se rapportent à l'année terminée le 31 décembre 1919. Nous adressons nos remerciements aux fonctionnaires du ministère des Terres Domaniales de la Nouvelle-Ecosse, du ministère des Terres et Mines du Nouveau-Brunswick, du ministère des Terres et des Forêts de Québec, du ministère des Terres de la Colombie Britannique et à l'Association Canadienne de la Pulpe et du Papier, qui nous ont aidé à préparer la liste préliminaire des industriels de cette catégorie et dont le personnel a facilité les opérations du recensement.

Ce rapport a été préparé en collaboration, par le Bureau Fédéral de la Statistique et la Division Forestière, du ministère de l'Intérieur. Le travail de compilation a été fait au Bureau Fédéral de la Statistique, sous la direction de M. J. C. Macpherson; la vérification des chiffres et la rédaction du rapport sont l'œuvre de M. R. G. Lewis, de la Division Forestière.

R. H. COATS,
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BUREAU FÉDÉRAL DE LA STATISTIQUE,
OTTAWA, février 1921.

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L'INDUSTRIE DE LA PULPE ET DU PAPIER EN 1919.

Introduction et résumé.

La comparaison des statistiques se rapportant à l'année civile 1919, telles qu'elles résultent du présent rapport, avec celles des années 1917 et 1918, témoignent de la continuation des progrès de l'industrie de la pulpe et du papier au Canada.

En 1917, il y avait 83 fabriques de pulpe et de papier en exploitation, dont la production atteignit \$96,340,327. En 1918, le nombre des pulperies et des papeteries s'est élevé à 94 et la valeur de leur production à \$119,309,434. En 1919, on en comptait 99, dont la production atteignait, \$139,921,001.

Dans l'état sommaire qui suit, on trouvera pour les années 1917, 1918 et 1919 les chiffres de la consommation du bois à pulpe par les pulperies et les quantités de bois abattu pour l'exportation.

| Bois à pulpe | 1917 | 1918 | 1919 |
|----------------------------------|------------------|------------------|------------------|
| | cordes | cordes | cordes |
| Consommé dans les pulperies..... | 2,104,334 | 2,210,744 | 2,428,706 |
| Abattu pour exportation | 1,017,834 | 1,349,536 | 1,070,275 |
| Total de la consommation. | 3,122,168 | 3,560,280 | 3,498,981 |

Les capitaux engagés dans cette industrie en 1919 sont également plus élevés que les années précédentes, ainsi qu'on peut le constater par le tableau suivant:

| Répartition des capitaux | 1917 | 1918 | 1919 | P. c. d'augmentation | |
|--|--------------------|--------------------|--------------------|----------------------|---------------|
| | | | | 1918 sur 1917 | 1919 sur 1918 |
| | \$ | \$ | \$ | p.c. | p.c. |
| Terrains, bâtiments et agencement..... | 84,461,837 | 118,805,581 | 121,448,227 | 40.66 | 2.22 |
| Machinerie et outillage..... | 59,266,596 | 60,627,268 | 75,407,708 | 2.29 | 2.38 |
| Matières premières et produits en stock, etc | 27,902,466 | 39,652,078 | 46,572,806 | 42.11 | 17.45 |
| Caisse et comptes courants..... | 15,156,506 | 22,259,779 | 32,338,623 | 46.86 | 45.28 |
| Totaux | 186,787,405 | 241,344,701 | 275,767,364 | 29.21 | 14.26 |

Les appointements et salaires qui s'élevaient, en 1917, à \$20,358,019 se sont élevés en 1918 à \$26,974,225 et, en 1919, à \$32,264,208, le pourcentage d'augmentation en 1918, sur 1917, étant 32.5 et en 1919 sur 1918, 19.61. Le nombre des commis et employés qui était de 1,563 en 1917 est monté à 1,929 en 1918 et à 2,405 en 1919, soit un accroissement d'approximativement 30 et 25 pour cent respectivement. Le nombre moyen des ouvriers et des journaliers établi à 21,402 en 1917 a été porté à 23,934 en 1918 et à 24,242 en 1919. L'augmentation en 1918 sur 1917 était de 11.83 pour cent et en 1919 sur 1918, 1.28 pour cent.

Ordre adopté.—Les statistiques du présent rapport traitent successivement des différentes phases de l'industrie, c'est-à-dire la production, les matières premières, les capitaux, la machinerie, la force motrice, le personnel, les appointements et salaires, la durée des travaux, les frais généraux et les exportations et importations.

Pour l'objet que nous avons en vue, les différents établissements engagés dans cette industrie ont été classés en trois catégories, savoir: (1) ceux qui fabriquent la pulpe exclusivement, appelés pulperies, (2) ceux qui fabriquent tout à la fois la pulpe et le papier, que nous désignerons sous le nom de pulperies-papeteries, et (3) ceux qui ne fabriquent que du papier, connus sous le nom de papeteries. Dans les tableaux qui vont suivre, les statistiques sont données séparément, d'abord pour chacun de ces groupes, puis collectivement sous le vocable "toutes fabriques".

Production.

Les tableaux introductifs du rapport (tableaux I et II) sont consacrés respectivement à la production de la pulpe de bois et du papier, dans chacune des provinces et dans la Puissance.

Pulpe. En 1919, la production de pâte de bois pour l'ensemble des fabriques canadiennes a atteint 1,716,089 tonnes, au lieu de 1,557,193 tonnes en 1918 et 1,464,308 tonnes en 1917. Tandis que 924,162 tonnes de la production de 1918 étaient transformées en papier dans les établissements producteurs eux-mêmes, 791,927 tonnes étaient destinées à la vente où à l'exportation. La vente de cette pulpe a rapporté \$48,485,746, soit une moyenne pour toutes les espèces de pulpe de \$61.22 par tonne. La quantité et la valeur de chaque sorte de pulpe fabriquée pour la vente, ainsi que sa valeur moyenne par tonne, prise à la fabrique, sont indiquées dans les tableaux suivants:

| Sortes de pulpe fabriquée pour la vente | Quantité | Prix de vente à la fabrique | Prix moyen par tonne à la fabrique |
|---|----------------|-----------------------------|------------------------------------|
| | tonnes | \$ | \$ |
| Fibre mécanique..... | 300,205 | 9,038,035 | 30.16 |
| Fibre à la soude..... | 3,174 | 297,113 | 93.60 |
| Fibre au sulfite, blanchie..... | 100,132 | 9,425,836 | 94.13 |
| Fibre au sulfite, non blanchie..... | 263,866 | 19,885,590 | 75.36 |
| Fibre au sulfate..... | 124,550 | 9,839,172 | 79.00 |
| Total, toutes pulpes | 791,927 | 48,485,746 | 61.22 |

La fibre au sulfite dont la production en 1918 se montait à 318,882 tonnes a été divisée, en 1919, en fibre blanchie et fibre non blanchie, ces deux sortes représentant ensemble 363,898 tonnes de sulfite pour cette année.

Il résulte des investigations faites en 1919 que 36 fabriques se sont livrées à la fabrication de la fibre mécanique; 28, de la fibre au sulfite non blanchie; 4, de la fibre au sulfite blanchie; 8, de la fibre au sulfate et 2 de la fibre à la soude.

Papier.—Le tableau II est consacré à la production du papier de tous genres, par quantités et valeur, pour chaque catégorie de fabriques. Les chiffres sont donnés, tant pour chacune des provinces que pour la Puissance. Le résumé qui suit donne le volume, la valeur absolue et la valeur par tonne de chaque espèce de papier et aussi le pourcentage respectif de chacune de ces espèces, par rapport à la production totale.

| Sortes de papier | Volume | Valeur | Prix moyen par tonne | Pourcent. du total en volume | Pourcent. du total en valeur |
|---|------------------|-------------------|----------------------|------------------------------|------------------------------|
| | tonnes | \$ | \$ | p. c. | p. c. |
| Papier de journal..... | 794,567 | 54,427,879 | 68.50 | 72.88 | 62.03 |
| Papier à écrire et à imprimer les livres. | 58,228 | 12,571,000 | 215.89 | 5.34 | 14.33 |
| Papier d'emballage .. | 59,697 | 7,979,418 | 133.66 | 5.48 | 9.09 |
| Cartons. | 137,678 | 8,892,046 | 64.58 | 12.63 | 10.13 |
| Autres produits du papier | 40,065 | 3,882,500 | 96.90 | 3.67 | 4.42 |
| Tous autres produits..... | | 3,610,070 | | | |
| Totaux | 9,090,235 | 91,362,913 | - | 100.00 | 100.00 |

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On remarque qu'en 1919, le prix moyen par tonne est plus élevé qu'en 1918 pour chaque sorte de papier, si l'on en excepte le papier à écrire et à imprimer les livres. Le papier à journal est passé de \$62.91 par tonne en 1918, à \$68.50 par tonne en 1919, soit une augmentation de 9 pour cent; le papier d'emballage, de \$119.99 par tonne en 1918, à \$133.66 par tonne en 1919, soit 11.4 pour cent; les cartons, de \$63.26 par tonne en 1918, à \$64.38 par tonne en 1919 ou 1.7 pour cent et les autres produits du papier, de \$91.90 par tonne en 1918 à \$96.90 par tonne en 1919, ou 6.36 pour cent. Le papier à écrire et à imprimer les livres, qui valait \$222.90 par tonne en 1918, est descendu à \$215.89 en 1919, soit une diminution de 3.2 pour cent.

Le papier à journal qui, en 1918, constituait 75.93 pour cent du volume total et 63.22 pour cent de la valeur totale des papiers fabriqués est tombé en 1919 à 72.88 pour cent du volume et 62.03 pour cent de la valeur. Le papier à écrire et à imprimer les livres est passé de 4.97 à 5.34 pour cent du volume, mais il est descendu de 14.68 à 14.33 de la valeur. Le papier d'emballage a déchu tant en volume qu'en valeur, son volume descendant de 6.32 pour cent en 1918 à 5.48 pour cent en 1939 et sa valeur de 10.04 en 1918 à 9.09 pour cent en 1919. Les cartons ont avancé dans les deux directions, leur volume ayant passé de 9.07 en 1918 à 12.63 en 1919 et leur valeur de 7.49 en 1918, à 10.13 en 1919. On remarque une légère décroissance dans les autres produits du papier, dont le volume est descendu de 3.71 pour cent en 1918, à 3.67 en 1919 et la valeur de 4.47 en 1918 à 4.42 en 1919.

Les différentes sortes de papier que nous venons d'énumérer absorbaient les activités de l'industrie dans les proportions suivantes: le papier à journal était fabriqué dans 24 papeteries, le papier d'emballage dans 19, le papier à écrire et à imprimer les livres dans 17, les cartons dans 13 et les autres produits du papier dans 18 établissements.

Le tableau qui suit indique l'importance respective de la fabrication du papier dans les provinces:

| Sortes de papier | | Colombie Britannique | Ontario | Québec | Canada |
|--|----------------------|-------------------------|-------------------|-------------------|-------------------|
| Papier de journal..... | -tonnes | 125,904 | 352,254 | 316,409 | 794,567 |
| | -valeur | 8,361,503 | 23,958,655 | 22,107,810 | 54,427,879 |
| Papier à écrire et imprimer les livres.. | -tonnes | - | 39,023 | 19,205 | 58,228 |
| | -valeur | - | 7,437,657 | 5,133,343 | 12,571,000 |
| Papier d'emballage | -tonnes | 9,406 | 10,193 | 40,098 | 59,697 |
| | -valeur | 993,225 | 1,535,078 | 5,451,115 | 7,979,418 |
| Cartons | -tonnes | - | 92,355 | 45,323 | 137,678 |
| | -valeur | - | 5,287,703 | 3,604,343 | 8,892,046 |
| Autres produits du papier..... | -tonnes | - | 4,967 | 35,098 | 40,065 |
| | -valeur | - | 799,881 | 3,082,619 | 3,882,500 |
| Tous autres produits..... | -valeur seulement | 475,921 | 911,580 | 2,222,560 | 3,610,070 |
| Totaux: volume | | 13135,310 | 489,792 | 456,133 | 1,090,235 |
| valeur des produits | | 9,830,649 | 39,930,474 | 41,601,790 | 91,362,913 |

Matières premières

Matières premières servant à la fabrication de la pulpe.—Les tableaux III à VI indiquent la quantité et l'essence des différents bois que l'on transforme en pulpe et qui forment la principale substance de ce produit et le tableau VIII s'occupe des matières premières d'ordre secondaire, employées concurremment avec le bois dans la fabrication de la pulpe chimique.

Le tableau III contient les détails de la consommation du bois à pulpe, par province, pour les années civiles 1918 et 1919. Québec tient la tête à cet égard avec un total de 1,176,134 cordes, soit 48.42 pour cent de la totalité du bois consommé. Ontario vient ensuite avec 840,856 cordes ou 34.62 pour cent. Les autres provinces présentent toutes également des augmentations de la

quantité de bois consommée par elles. Le prix moyen d'une corde de bois à pulpe, conduit à la fabrique, est considérablement plus élevé qu'en 1918; il oscille entre \$15.60 par corde dans Ontario et \$7.40 par corde en Nouvelle-Ecosse, la moyenne pour la Puissance s'établissant à \$12.90 par corde, en augmentation sur le prix de 1918 de \$1.64 par corde ou, approximativement, 14.6 pour cent. En 1919, 66 manufactures se livraient à la fabrication de la pulpe, dont 29 situées dans Québec, 22 dans Ontario, 5 dans la Colombie Britannique, 5 en Nouvelle-Ecosse, et 5 au Nouveau-Brunswick.

On trouve dans le tableau IV les différentes essences de bois servant à cette fabrication. L'épinette domine toutes les espèces, avec 1,787,868 cordes, ou 73.61 pour cent de la totalité de tous bois. Le sapin-baumier vient ensuite avec 490,327 cordes ou 20.19 pour cent et la pruche troisième, avec 118,013 cordes, ou 4.86 pour cent. Les autres essences sont loin d'être aussi importantes, aucune d'elles ne représentant 1 pour cent du total. L'épinette est broyée dans 61 manufactures, le sapin-baumier dans 33, la pruche dans 8, le peuplier dans 4, le pin gris dans 3 et les autres essences dans 2.

La consommation de bois à pulpe en 1918 et 1919, selon les différents procédés de fabrication, est relatée dans le tableau V. Le procédé au sulfite a absorbé 1,127,629 cordes ou 46.43 pour cent du total; le broyage mécanique 1,010,457 cordes ou 41.61 pour cent; le procédé au sulfate 281,360 cordes ou 11.58 pour cent, et le procédé à la soude 9,230 cordes ou 38 pour cent. La pulpe mécanique était fabriquée dans 46 manufactures, la pulpe au sulfite dans 28, la pulpe au sulfate dans 8 et la pulpe à la soude dans 2.

Le tableau VI est une combinaison des tableaux III à V, en ce qu'il présente la relation du bois à pulpe, par provinces, par essences et par procédés, établissant ainsi un parallèle et un contraste. Le tableau VII indique la consommation et la valeur du bois à pulpe, par essences et par catégories de manufactures pour la Puissance et pour chacune des provinces, en établissant une distinction entre le bois acheté et celui abattu dans les terres boisées appartenant à l'industriel. En 1919, il en a été consommé 2,428,706 cordes, soit 217,962 cordes de plus qu'en 1918; sur ce total, 1,006,934 cordes avaient été achetées et 1,421,772 cordes avaient été coupées dans les propriétés des industriels. L'épinette distince de loin toutes les autres essences servant à la fabrication de la pulpe, avec 1,787,868 cordes ou 73.61 pour cent de la totalité du bois consommé. Près de 60 pour cent de l'épinette furent coupés dans les propriétés des industriels, tandis que 40 pour cent étaient achetés. Le sapin-baumier se place au second rang avec 490,327 cordes en 1919, au lieu de 447,243 cordes en 1918, soit une augmentation de volume d'environ 9.6 pour cent. La pruche, avec 118,013 cordes, le pin gris, avec 15,402 cordes, le peuplier avec 7,228 cordes et les autres essences avec 9,868 cordes (principalement le cèdre) étant les essences secondaires figurant au questionnaire.

La fabrication de la pulpe mécanique a absorbé 1,010,457 cordes de bois en 1919, au lieu de 873,084 cordes en 1918, soit une augmentation de 137,373 cordes ou 15.73 pour cent. Les procédés chimiques ont transformé 1,418,249 cordes en 1919, au lieu de 1,337,660 cordes en 1918, soit une augmentation de 80,589 cordes ou 6 pour cent.

Nous donnons ci-dessous la valeur du bois consommé en 1917, 1918 et 1919, dans les pulperies ainsi que son prix moyen par corde, avec distinction entre le bois acheté et celui appartenant aux industriels.

| Année | Acheté | | Appartenant aux industriels | | Prix moyen d'une corde | |
|-----------|-----------|--------------|-----------------------------|---------------|------------------------|---------|
| | Cordes | Valeur | Cordes | Valeur | Appartenant | Acheté |
| 1917..... | 539,303 | \$ 5,549,335 | 1,665,041 | \$ 13,268,148 | \$ 10.26 | \$ 8.48 |
| 1918..... | 717,097 | 8,981,307 | 1,493,647 | 15,905,168 | 12.52 | 10.65 |
| 1919..... | 1,006,934 | 13,949,853 | 1,421,772 | 17,397,833 | 13.85 | 12.24 |

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Le prix moyen de la corde de bois diffère selon les procédés de fabrication; il est plus élevé dans le procédé mécanique et le procédé au sulfite et est plus bas dans le procédé au sulfate, lequel permet l'usage de bois de qualité inférieure. En 1919, le bois transformé en pâte par le procédé mécanique valait \$13.14 la corde, contre \$11.40 en 1918. Le bois traité par le procédé au sulfite valait \$13.02 la corde en 1919, contre \$11.64 en 1918 et celui traité au sulfate valait \$11.63 en 1919, contre \$9.41 en 1918.

Le tableau comparatif qui suit, couvrant les années 1917, 1918 et 1919, nous indique la quantité de pulpe produite par une corde de bois, selon les différents procédés de fabrication.

| Année | Livres de pulpe produites par corde de bois | | | |
|----------------|---|---------|---------|--------------|
| | Soude | Sulfate | Sulfite | Pâte de bois |
| | liv. | liv. | liv. | liv. |
| 1917..... | 930 | 1,105 | 1,063 | 2,043 |
| 1918..... | 980 | 1,133 | 1,037 | 2,039 |
| 1919 | 996 | 1,126 | 997 | 1,961 |

On trouvera dans le tableau IX les détails pour chaque province et pour chaque catégorie de manufactures du bois consommé et de la pulpe produite.

Les autres matières premières utilisées dans la fabrication de la pulpe de bois font l'objet du tableau VIII. Dans tous les cas, la valeur indiquée est le prix coûtant à la fabrique. La province de la Nouvelle-Ecosse est exclue de ce tableau, car sa production se limite exclusivement à la pâte de bois mécanique.

Matières premières employées à la fabrication du papier.—Le tableau X est consacré aux matières premières employées à la fabrication du papier, par chaque province et par catégories de manufactures. La pulpe constitue la substance principale et nous apprenons que 1,037,231 tonnes de pâte de bois ont été transformées en papier, dont 921,490 tonnes étaient produites par les papeteries elles-mêmes et 115,741 tonnes avaient été achetées à d'autres manufactures. La valeur de la pulpe achetée atteignait \$9,148,338, soit une moyenne calculée sur toutes espèces de pulpe, d'approximativement \$80 par tonne. Il a été acheté 44,986 tonnes de pulpe mécanique valant \$2,962,699, soit en moyenne, \$65.85 par tonne; 1,822 tonnes de fibre à la soude valant \$213,965, ou \$117.43 par tonne; 18,432 tonnes de fibre au sulfite blanchie valant \$2,430,945, soit en moyenne \$131.89 par tonne; 44,237 tonnes de fibre au sulfite non blanchie valant \$3,101,869, soit en moyenne \$70.12 par tonne et enfin 6,264 tonnes de fibre au sulfate, valant \$438,860, soit une moyenne par tonne de \$70.06. Quant aux autres substances, leur volume et leur coût sont également donnés en détail; leur valeur totale s'élève à \$8,656,596, ce qui fait un grand total de \$17,804,934, représentant la valeur des matières premières achetées.

A ce total il convient d'ajouter la pulpe produite par les papeteries elles-mêmes, soit 921,490 tonnes d'une valeur de \$24,834,532, formant un total définitif de \$42,639,466 pour toutes les matières employées à la fabrication du papier.

Consommation du combustible.—Le tableau XI consacré au combustible indique la quantité et la valeur des différentes sortes de combustible consommé dans chaque catégorie de fabriques au cours de l'année terminée le 31 décembre 1919. La totalité du coût du combustible consommé par cette industrie s'élève à \$10,549,493, dans laquelle somme la houille bitumineuse entre pour \$9,408,721, soit approximativement 90 pour cent de tout le combustible. Dans

l'état qui suit on verra les différentes sortes de combustible consommé dans la Puissance, avec indication de son origine.

| Sortes de combustible | De provenance canadienne | | De provenance étrangère | |
|---|-----------------------------|------------------|----------------------------|------------------|
| | Quantité | Valeur | Quantité | Valeur |
| | | \$ | | \$ |
| Houille bitumineuse, menue..... ton. | 20,807 | 156,802 | 458,868 | 3,588,425 |
| Houille bitumineuse, en morceaux..... " | 1,160 | 9,563 | 230,864 | 1,579,628 |
| Houille bitumineuse, tout venant..... " | 206,225 | 1,655,253 | 284,348 | 2,409,050 |
| Houille anthracite, en morceaux..... " | - | - | 353 | 5,017 |
| Lignite..... " | - | - | 10,119 | 65,723 |
| Coke..... " | - | - | 345 | 949 |
| Gazoline..... gal. | 52,589 | 15,633 | 1,000 | 330 |
| Pétrole..... " | 663,866 | 47,962 | 13,733,452 | 690,758 |
| Tous autres combustibles..... | 33,462 | 234,134 | - | - |
| Bois..... cordes | - | 79,526 | - | 740 |
| Coût total du combustible..... | - | 2,208,873 | - | 8,340,620 |

Moyens de production—⁽¹⁾ Capital—Machinerie—Force motrice.

Les tableaux XII à XVI inclusivement sont consacrés aux moyens de production d'une nature fixe ci-dessus mentionnés.

Capital.—Dans le tableau XII on trouve le capital réparti sous quatre rubriques distinctes: (a) terrains, bâtiments, agencement, (b) machinerie et outillage, (c) matières premières en main, stocks en voie de fabrication, produits ouvrés en magasin et approvisionnements de combustible et autres et (d) fonds de roulement, caisse et comptes courants. Les détails en sont donnés dans les relevés suivants, par catégories de fabriques et pour tout le pays.

| Nomenclature | Papeteries | Pulperies | Pulperies- papeteries | Toutes fabriques |
|---|-------------------|-------------------|--------------------------|---------------------|
| | \$ | \$ | \$ | \$ |
| Terrains, bâtiments, agencement..... | 7,156,078 | 28,776,979 | 85,515,170 | 121,448,227 |
| Machinerie et outillage..... | 3,811,936 | 17,918,903 | 53,676,869 | 75,407,708 |
| Matières premières en main, stocks en voie de fabrication, produits ouvrés, etc..... | 2,502,934 | 12,066,905 | 32,002,967 | 46,572806 |
| Caisse et comptes courants..... | 3,082,328 | 11,133,801 | 18,122,494 | 32,338,623 |
| Totaux.. | 16,553,276 | 69,896,588 | 189,317,500 | 275,776 364 |

Nous donnons ci-dessous les capitaux absorbés par les différentes provinces:

| Provinces | Papeteries | Pulperies | Papeterie- pulperies | Toutes fabriques |
|------------------------------------|-------------------|-------------------|-------------------------|---------------------|
| | \$ | \$ | \$ | \$ |
| Colombie Britannique..... | - | 6,388,121 | 36,828,006 | 43,216,127 |
| Ontario..... | - | 11,960,778 | - | 11,960,778 |
| Québec..... | - | 1,208,255 | - | 1,208,255 |
| Nouveau-Brunswick..... | 6,703,756 | 21,575,584 | 67,001,700 | 95,281,040 |
| Nouvelle Ecosse..... | 9,849,520 | 28,763,850 | 85,487 794 | 124,101,164 |
| Totaux pour le Canada | 16,553,276 | 69,896,588 | 189,317,500 | 275,767,364 |

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Le pourcentage de chacun des item par rapport à la totalité des capitaux et le pourcentage par provinces et pour chaque catégorie de fabrique s'établit ainsi qu'il suit:

(a) Pourcentage du total des capitaux.

| Nomenclature | Papeteries, pourcentage | Pulperies, pourcentage | Pulperies- papeteries, pourcentage | Toutes fabriques, pourcentage |
|---|----------------------------|---------------------------|--|-------------------------------------|
| Terrains, bâtiments, agencement..... | 43.23 | 41.17 | 45.17 | 44.04 |
| Machinerie et outillage..... | 23.03 | 25.64 | 28.35 | 27.34 |
| Matières premières en main, stock en voie de fabrication, produits ouvrés..... | 15.12 | 17.26 | 16.91 | 16.89 |
| Caisse et comptes courants..... | 18.62 | 15.93 | 9.57 | 11.73 |
| Totaux.. | 100.00 | 100.00 | 100.00 | 100.00 |

(b) Pourcentage de chaque province.

| Provinces— | | | | |
|---------------------------|---------------|---------------|---------------|---------------|
| Colombie Britannique..... | — | 9.14 | 19.45 | 15.67 |
| Nouveau-Brunswick..... | — | 17.11 | — | 4.34 |
| Nouvelle-Ecosse..... | — | 1.73 | — | .44 |
| Ontario..... | 40.50 | 30.87 | 35.40 | 34.55 |
| Québec..... | 59.50 | 41.15 | 45.15 | 45.00 |
| | 100.00 | 100.00 | 100.00 | 100.00 |

Il résulte du tableau qui précède que les terrains, bâtiments et agencement représentent la plus grosse partie des sommes placées dans cette industrie; leur proportion atteint 45.17 pour cent dans les papeteries et pulperies combinées. Viennent ensuite la machinerie et l'outillage, le pourcentage le plus élevé se trouvant encore dans les papeteries et pulperies combinées. Les matières premières, stocks en voie de fabrication, etc., suivent; leur pourcentage le plus élevé, 17.26, se trouve dans les pulperies. Les papeteries possèdent les fonds de roulement les plus importants, avec 18.63 pour cent, suivies par les pulperies avec 15.93 pour cent et les papeteries-pulperies, avec 9.57 pour cent.

Pour l'ensemble des catégories de fabriques, le pourcentage le plus élevé se trouve dans la province de Québec, avec 45 pour cent de la totalité, Ontario se place au second rang, avec 34.55 pour cent et la Colombie Britannique au troisième, avec 15.67 pour cent.

Machinerie.—Dans les pulperies fabriquant la pâte de bois mécanique, il existe 612 broyeurs, ayant une capacité de 3,939 tonnes par 24 heures et une capacité annuelle de 1,193,920 tonnes de pulpe, pesée à sec. La province de Québec possède à elle seule 325 de ces broyeurs, ayant une capacité quotidienne de 2,195 tonnes et une capacité annuelle de 623,100 tonnes, poids sec. La pulpe de bois effectivement fabriquée au Canada en 1919, forme un volume de 990,902 tonnes, soit près de 83 pour cent de la capacité potentielle; en 1918, le même pourcentage a été 76.74. Dans Québec, il a été fabriqué 515,457 tonnes de pulpe par des machines dont la potentialité atteignait 623,100 tonnes, soit 82.72 pour cent; dans Ontario, 351,572 tonnes sur un total possible de 427,520 tonnes, soit 82.23 pour cent; dans la Colombie Britannique, 99,967 tonnes, sur un total possible de 111,600 tonnes, soit 89.57 pour cent. En Nouvelle-Ecosse où l'on fabrique exclusivement la pâte de bois mécanique, 17,659 tonnes, sur un total possible de 24,200 tonnes, soit 72.97 pour cent du total possible et au Nouveau-Brunswick 6,447 tonnes sur un total possible de 7,500 tonnes, soit 85.96 pour cent.

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Le tableau XIV énumère la machinerie des fabriques où l'on produit la pulpe par les procédés chimiques. Les digesteurs, qui étaient au nombre de 134 en 1918, se dénombrèrent par 137 en 1919, la capacité, en tonnes par cuisson, ayant passé de 633 tonnes en 1918 à 915 tonnes en 1919 et la capacité annuelle des fabriques de 810,697 tonnes en 1918 à 890,100 tonnes en 1919.

Le pourcentage de la production effective de la pulpe chimique par rapport à la capacité potentielle, tant pour le Canada dans chaque province, est indiqué dans le tableau suivant:

| Provinces | Capacité potentielle | Production | Pourcen- tage de la production |
|----------------------|-------------------------|------------|--------------------------------------|
| | tonnes | tonnes | p c. |
| Colombie Britannique | 104,260 | 94,359 | 90.50 |
| Nouveau-Brunswick | 90,000 | 68,739 | 76.38 |
| Ontario | 308,240 | 246,255 | 79.89 |
| Québec | 387,600 | 315,834 | 81.49 |
| Canada | 890,100 | 725,187 | 81.47 |

Machinerie des papeteries.—La machinerie constituant l'agencement des papeteries fait l'objet du tableau XV. La capacité potentielle annuelle de toutes les papeteries atteint 1,162,377 tonnes, en augmentation de 142,843 tonnes sur l'année précédente. En 1919, il a été produit 1,090,235 tonnes de papier et de produits du papier, soit près de 93.80 pour cent du total possible. Ontario tient la tête pour la production du papier, avec 498,792 tonnes, sur une capacité potentielle de 513,593 tonnes, soit 97.11 pour cent. Québec suit avec une production réelle de 456,133 tonnes et une capacité potentielle de 510,784 tonnes, soit 89.30 pour cent et la Colombie Britannique vient en troisième lieu, avec une production effective de 135,310 tonnes, sur une capacité potentielle de 138,000 tonnes, soit 98.0 pour cent. Il résulte des énonciations qui précèdent que la marge entre la production possible et la production réelle au cours de l'année, représentait 6.20 pour cent pour la Puissance, 2.89 pour cent dans Ontario, 10.70 pour cent dans Québec et 2.0 pour cent dans la Colombie Britannique.

Force motrice employée.—Les différentes sortes de force motrice employées dans l'industrie sont mentionnées dans le tableau XVI, par provinces et par catégories de fabriques. En 1919, on comptait 4,584 machines motrices susceptibles de développer 623,588 chevaux-vapeur dont 512,886 chevaux-vapeur furent effectivement utilisés. La force motrice hydraulique tient le premier rôle, avec 356 unités, d'une capacité de 290,164 chevaux-vapeur, dont 245,022 furent effectivement utilisés. L'électricité vient ensuite, avec 3,433 unités susceptibles de produire 198,930 chevaux-vapeur, dont 150,648 chevaux-vapeur ont été effectivement utilisés. Il y avait aussi 261 machines à vapeur ou turbines à vapeur, pouvant développer toutes ensembles 47,586 chevaux-vapeur dont 38,133 effectivement utilisés. Les pulperies et papeteries combinées ont consommé 61.29 pour cent de cette force motrice, les pulperies 32.97 pour cent et les papeteries 5.71 pour cent. Par province, cette consommation se répartit ainsi qu'il suit: Québec 48.91 pour cent, Ontario 28.54 pour cent, Colombie Britannique 14.66 pour cent; Nouveau-Brunswick 5.76 pour cent et Nouvelle-Ecosse 2.3 pour cent.

Moyens de production—(2) Personnel, traitements, appointements, salaires et durée des opérations.

Toutes les données relatives au travail sont concentrées dans les tableaux XVII à XX, tant par provinces que par catégories de fabriques.

Personnel, traitements, appointements et salaires.—Le tableau XVII traite du personnel d'exploitation; il nous indique le nombre de personnes des deux sexes que fait travailler cette industrie, soit comme employés, soit comme main-d'œuvre et le chiffre de leur rémunération, tant en traitements et appointements qu'en salaires. Nous donnons ci-dessous un état comparatif du nombre du personnel classifié et des traitements, appointements et salaires payés durant les années 1918 et 1919.

| | | Hommes | Femmes | Traite- ments, appointe- ments et salaires | Pourcentages d'augmentation | |
|--|------|--------|--------|--|--------------------------------|--|
| | | | | | Personnel | Traitem., appointem. et salaires |
| | | nombre | nombre | \$ | p.c. | p.c. |
| Administrateurs, directeurs et gérants..... | 1918 | 462 | 2 | 1,867,468 | 20.69 | 13.67 |
| | 1919 | 542 | 18 | 2,054,574 | | |
| Commis, sténographes et autres employés de bureau. | 1918 | 1,164 | 301 | 1,888,151 | 25.94 | 39.64 |
| | 1919 | 1,485 | 360 | 2,636,096 | | |
| Ouvriers et journaliers, nombre moyen..... | 1918 | 23,086 | 848 | 23,278,606 | 1.29 | 18.46 |
| | 1919 | 23,346 | 896 | 27,573,538 | | |
| Totaux | 1918 | 24,712 | 1,151 | 26,974,225 | 3.03 | 19.61 |
| | 1919 | 25,373 | 1,274 | 32,264,208 | | |

On constate par le résumé ci-dessus que le personnel employé par cette industrie s'est augmenté durant l'année de 784 unités ou 3.03 pour cent. Dans la première catégorie, l'augmentation se traduit par 96 personnes ou 20.03 pour cent; dans la seconde catégorie, cette augmentation atteint 380 personnes ou 25.92 pour cent. Les ouvriers et journaliers ont augmenté de 784, soit de 1.29 pour cent. Les traitements, appointements et salaires payés durant 1918-19 continuent leur marche ascendante, quoique dans une proportion moindre qu'en 1917-18; les traitements ont subi une hausse de 13.67 pour cent, les appointments de 39.64 pour cent et les salaires de 18.46 pour cent. Ces augmentations forment pour l'ensemble des fabriques une somme de \$5,289,983, soit 19.61 pour cent. En jetant un coup d'œil sur l'état ci-dessous, on établira facilement un parallèle entre la moyenne des traitements, appointements et salaires en 1918 et la même moyenne en 1919.

| Personnel | Moyenne des gains | | Augmentation | |
|--|-------------------|----------|--------------|---------------|
| | 1918 | 1919 | Absolue | Pourcentage |
| Administrateurs, directeurs et gérants | \$ 3,895 | \$ 3,669 | \$ —226 | p.c. —5.80 |
| Commis, sténographes, etc. | 1,289 | 1,429 | 140 | 10.86 |
| Ouvriers et journaliers..... | 972 | 1,137 | 165 | 16.98 |

On remarquera une diminution sensible dans la moyenne des traitements des administrateurs, directeurs et gérants depuis l'année dernière, laquelle représente 5.85 pour cent. Ceci s'explique par le fait que les 96 nouveaux employés entrés en 1909 n'ont reçu que \$247,106 et peut-être moins, si l'on fait entrer

en ligne de compte les augmentations reçues par les autres. Ces nouveaux employés ont donc reçu en moyenne chacun \$2,574, au lieu de \$3,895 en 1918, circonstance ayant pour effet d'abaisser la moyenne générale des traitements. La seconde catégorie, celle des commis, a reçu une augmentation moyenne de \$140 par personne, soit 10.86 pour cent. Enfin, la troisième catégorie, c'est-à-dire la classe ouvrière a bénéficié d'une augmentation moyenne de \$165 par personne, soit 16.98 pour cent.

Durée des opérations.—Dans le tableau XVIII se trouve l'indication du nombre des ouvriers occupés pendant chaque mois de l'année dans les différentes fabriques. Dans les pulperies, les mois de plus grande activité se placent entre octobre et décembre et ceux de morte-saison de janvier à mars. Dans les pulperies-papeteries on a travaillé avec une grande activité de juin à décembre, la morte-saison s'étant produite entre janvier et juin. On ne trouve pas dans les papeteries les variations qui affectent les autres fabriques: on constate toutefois qu'elles ont employé le plus grand nombre d'ouvriers en novembre et le plus petit nombre en mai.

Classification des salaires hebdomadaires. -Le tableau XIX, consacré à la rémunération de la classe ouvrière, nous fait connaître la moyenne de ses gains hebdomadaires, selon son sexe et son âge, par catégorie de fabriques et par provinces. On a établi une gradation de \$1 pour les salaires allant de \$5 jusqu'à \$16 par semaine et une gradation de \$2 pour les salaires de \$16 à \$30 par semaine. Sur les 25,177 ouvriers et journaliers vivant de cette industrie, 760, soit approximativement 3 pour cent gagnaient moins de \$10 par semaine au lieu de 1,173 ou 5 pour cent en 1918; 1,751 ouvriers et journaliers, ou 6.95 pour cent, recevaient entre \$10 et \$15 par semaine, au lieu de 3,062 ou 13.14 pour cent en 1918. Ceux dont le salaire est de \$15 à \$20 par semaine se dénombrèrent par 5,528 ou 21.96 pour cent, au lieu de 7,499 ou 32.2 pour cent en 1918. Enfin, 17,138 d'entre eux, ou 68.07 pour cent ont reçu plus de \$20 par semaine en 1919, au lieu de 11,577 ou 49.66 pour cent en 1918. Le relevé ci-dessus nous donne les salaires hebdomadaires de la classe ouvrière, dans chaque groupe.

| | 1919 | | | | Total | 1918 | | | | Total |
|------------------------------|---------------------|--------|----------------------|--------|--------|---------------------|--------|----------------------|--------|--------|
| | Au-dessus de 16 ans | | Au-dessous de 16 ans | | | Au-dessus de 16 ans | | Au-dessous de 16 ans | | |
| | Hommes | Femmes | Garçons | Filles | | Hommes | Femmes | Garçons | Filles | |
| Au-dessous de \$5. | 8 | 20 | 21 | 20 | 69 | - | 2 | - | - | 2 |
| \$5 mais moins de \$6 | 3 | 5 | 10 | 16 | 34 | 17 | 7 | 8 | 11 | 43 |
| \$6 mais moins de \$7 | 39 | 65 | 21 | 8 | 133 | 18 | 29 | 28 | 10 | 85 |
| \$7 mais moins de \$8. | 87 | 87 | 21 | 20 | 224 | 63 | 112 | 9 | 3 | 187 |
| \$8 mais moins de \$9. | 122 | 210 | 13 | 16 | 361 | 56 | 104 | 21 | 7 | 188 |
| \$9 mais moins de \$10 | 216 | 111 | 22 | 3 | 352 | 90 | 132 | 23 | 10 | 255 |
| \$10 mais moins de \$12 | 371 | 148 | 23 | - | 542 | 196 | 187 | 74 | - | 457 |
| \$12 mais moins de \$15..... | 2,402 | 102 | 16 | - | 2,520 | 1,098 | 162 | 33 | 1 | 1,294 |
| \$15 mais moins de \$20. | 7,420 | 22 | 55 | 2 | 7,499 | 5,405 | 98 | 24 | 1 | 5,528 |
| \$20 et plus..... | 11,566 | 10 | 1 | - | 11,577 | 17,079 | 26 | 33 | - | 17,138 |
| Totaux | 22,234 | 780 | 203 | 94 | 23,311 | 24,022 | 859 | 253 | 43 | 25,177 |

L'augmentation générale des salaires hebdomadaires est le trait le plus saillant qui ressort du tableau ci-dessus; en effet, le nombre des petits salariés a décréu et celui des mieux rémunérés s'est accru. En 1918, on n'en comptait que 11,577 dans le groupe recevant plus de \$20.00 par semaine, tandis qu'en 1919 ce groupe compte 17,138 personnes, soit une augmentation dans l'année de 5,561.

Le tableau XX donne la moyenne de la durée du travail dans chaque catégorie de fabriques et nous indique pendant combien de temps elles ont

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fonctionné (a) en travaillant tout le jour, (b) pendant trois quarts d'une journée, (c) pendant une demi-journée, (d) pendant moins d'une demi-journée et enfin pendant combien de jours elles ont cessé leur travail. Ce sont les pulperies-papeteries qui ont fourni la plus grande somme de travail, c'est-à-dire 293 jours entiers, 5 parties de journées et 6 jours d'inactivité. Les papeteries occupent le second rang, avec 270 jours entiers, 10 parties de journées et 24 journées d'inactivité. Les pulperies ont subi le plus long chômage; elles ont travaillé pendant 240 jours entiers, 21 fractions de journées et sont restées fermées pendant 43 jours. Les ouvriers des pulperies ont travaillé en moyenne 9.7 heures par jour et 61 heures par semaines; ceux des papeteries ont travaillé 9 heures par jour et 56.5 heures par semaine. Ceux des pulperies-papeteries n'ont travaillé que 8 heures par jour et 48 heures par semaine.

Frais généraux de production

Les dépenses diverses ou frais généraux de production se trouvent dans le tableau XXI pour chaque province et pour chaque catégorie de fabriques. Sous cette rubrique, on trouve ce qui suit:

| | \$ |
|---|----------------------|
| Loyers de bureaux, d'usines et de machinerie..... | 295,191 |
| Achat de force motrice..... | 1,761,554 |
| Primes d'assurance..... | 891,257 |
| Taxes..... | 1,441,729 |
| Droits régaliens, usage de brevets, etc..... | 29,241 |
| Publicité..... | 117,664 |
| Voyages..... | 338,954 |
| Réparations ordinaires aux bâtiments et aux machines..... | 5,163,165 |
| Toutes autres dépenses..... | 6,990,657 |
| Total..... | \$ 17,029,412 |

Les frais généraux non classifiés constituent la dépense la plus importante, car elle représente 41.05 pour cent de la totalité; les réparations ordinaires aux bâtiments et à la machinerie absorbent 30.32 pour cent; l'achat de force motrice 10.34 pour cent; les taxes municipales, provinciales et fédérales 84.7 pour cent; l'assurance 5.23 pour cent; les voyages 1.99 pour cent, les loyers de bureaux, etc., 1.73 pour cent, la publicité 0.69 pour cent et les droits régaliens, etc., 0.17 pour cent.

Exportations et importations de bois à pulpe, de pulpe de bois et de papier en 1919

Bois à pulpe.—Les tableaux numérotés XXII et XXIII de ce rapport sont consacrés aux exportations de bois à pulpe, par provinces, pendant une série d'années. Le tableau XXII donne la quantité et la valeur du bois à pulpe exporté pendant les années civiles 1916, 1917, 1918 et 1919. On constate une diminution tant en quantité qu'en valeur sur l'année dernière, cette diminution étant de 279,261 cordes et de \$2,406,203. En 1919, la moyenne du prix de toutes les essences de bois exporté s'établit à \$9.71 par corde. Le tableau XXIII indique, outre les exportations, les quantités consommées, ces deux volumes réunis formant le total de la production du bois à pulpe au Canada pendant l'année. On observera que tandis que le bois à pulpe consommé dans nos fabriques augmente d'année en année, l'exportation est sujette à des fluctuations considérables. La province de Québec a fourni 61.8 pour cent du total du bois à pulpe exporté, Ontario 18.3 pour cent, le Nouveau-Brunswick 18.2 pour cent, la Colombie Britannique 1.5 pour cent et la Nouvelle-Ecosse un peu plus de un dixième de 1 pour cent. La totalité du bois à pulpe exporté

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en 1919 est allée aux Etats-Unis. Le Canada n'a pas importé de bois à pulpe en 1919.

Pulpe de bois.—Le tableau XXIV nous renseigne sur les exportations de pulpe de bois, par pays de destination, pendant les années civiles 1917, 1918 et 1919. Pendant cette dernière année, le Canada a exporté 709,129 tonnes de pulpe, dont 311,551 tonnes de pulpe mécanique et 397,578 tonnes de pulpe chimique. Un changement qui s'est opéré en 1919 dans la classification de la pulpe chimique permettra d'indiquer dans les futurs rapports le détail des différentes espèces. Plus de 56 pour cent de la pulpe mécanique et 79 pour cent de la pulpe chimique ont été exportés aux Etats-Unis. Le Royaume-Uni nous a acheté 30 pour cent de la pulpe mécanique et 10 pour cent de la pulpe chimique. La France et le Japon sont, après ceux-ci, nos meilleurs clients. Les importations de pulpe de bois, par pays d'origine, font l'objet du tableau XXV. En 1917, et 1918 la totalité de nos importations venaient des Etats-Unis mais en 1919 nous en avons reçu une petite quantité du Royaume-Uni.

Papier.—Les exportations de papier de toutes sortes, par quantités et par valeur, figurent dans le tableau XXVI, qui se rapporte aux années 1917, 1918 et 1919. Les exportations ont passé de \$35,621,932 en 1917, à \$42,950,759 en 1918, ayant ainsi augmenté de 20 pour cent, mais en 1919 leur valeur s'est élevée à \$59,983,269, soit une augmentation sur 1918 de près de 40 pour cent. Nous donnons ci-dessous le nom des pays auxquels nous avons vendu du papier à journal et la valeur de nos exportation:—

1919

| Pays | Valeur | Pourcentage |
|-----------------------|-------------------|---------------|
| | \$ | p.c. |
| Etats-Unis..... | 43,603,922 | 87.54 |
| Royaume-Uni..... | 1,184,562 | 2.38 |
| Australie..... | 2,470,057 | 4.95 |
| Afrique du Sud..... | 197,045 | 0.40 |
| Nouvelle-Zélande..... | 623,792 | 1.25 |
| Autres pays..... | 1,731,984 | 1.48 |
| Total..... | 49,811,162 | 100.00 |

Quant au papier importé durant les années 1917, 1918 et 1919 on en trouve la valeur et le volume dans le tableau XXVII. Ces importations augmentent annuellement, mais dans une proportion moindre que les exportations. Le pourcentage d'augmentation qui était de 7.6 en 1918 s'est élevé en 1919 à plus de 9.0. Durant cette dernière année le chiffre de nos importations a atteint \$9,246,414.

